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ABSTRACT

Problems facing higher education in India are examined in terms of systems analysis, structural changes, input-output ratios, and critical perspectives of the system itself. Part I (Introduction and Present Position) provides an introduction to the problems, information on the education commission, and planning in education. Part II (Higher Education and Systems) examines the economics of education, systems analysis, and structural changes and articulation. Part III (Structural Changes and Reorganization) discusses: structural changes and reorganization; the need for community/junior colleges in India; the open university; central responsibility; and the coordination of higher education in a federal system. Several suggestions are offered such as: (1) the need for clear definition of goals and purposes; (2) emphasis on the preservation of inherent quality and diversity; (3) spread of community/junior colleges across the nation; (4) the establishment of open universities; (5) advancement of social justice; (6) that associate in arts degrees be made generally available after the two years of post-10-year school education, to be followed by two- or three-year-degree courses in different faculties (a mix of the U.S.S.R. and U.S. systems); and (7) that all postsecondary education be properly coordinated and systematized. A listing of the universities in India are appended, and a bibliography and index are provided. (LC)

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PROBLEMS OF HIGHER EDUCATION IN INDIA

An Approach to Structural Analysis and Reorganization

K. L. JOSHI

U S DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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To
All those involved in the progress and development of
Higher Education

PREFACE

During the last decade there have been a number of international studies about problems in the field of higher education, the most significant among them being the *Carnegie Commission Reports,* and it has become obvious that a proper analysis of the organisation has to be undertaken if the system of higher education in India has to adapt itself to the social and economic needs of the country and for future development through an extraordinary epoch of scientific and technological revolution.

Systems analysis, structural changes, input-output ratios and a critical perspective of the system itself need consideration in this context. The reports of the various government commissions and committees were inhibited because the major question raised was what the government should do and the bureaucratic interest has been more prominent in their finding rather than the needs of the people and shaping the organization into a system. Lack of public criticism of educational policies may be one of the reasons.

Though I worked in the Government of India for 22 years from 1945-46 to 1967 through a crucial policy-making period in responsible positions in the Education Ministry, the Planning Commission and the University Grants Commission, I was only a cog in the wheel of bureaucracy and of the government machinery. It is not as if I had no opportunities to express my views during the period but a logical presentation of several ideas and a deeper study of the problems was only possible when I retired from service and was free from any inhibitions.

It may be pointed out at the outset that this volume is addressed to all students of education; to students and teachers in the colleges of education who have been traditionally fed on the acceptance of authorities without being critical or questioning their assumptions and suitability to the present conditions of India.

Secondly, it is addressed to the central and state governments and most significantly to the academics of all disciplines in the universities who find themselves in a state of despair because even if they would like to mend matters, they plead helplessness on account of bureaucratic and political pressures. Finally it is addressed to the public, legislators and leaders, without whose active interest in Higher Education it would be difficult to deal with the problems of mounting numbers and inadequate resources. They have to guide the government to arrive at correct decisions.

During discussions with many administrative officers, vice-chancellors and professors and other educators as well as students for the last ten years when this theme was growing in my mind, many of them seemed to agree with most of the ideas candidly expressed in this book, and I expect that further discussions on structural analysis and reorganization of higher education will be provoked by the volume. Some vice-chancellors wrote to me encouraging letters in reply to my statement for comments and I am grateful to them all. This book may please many of them but some would like to pursue a line of further inquiry and research.

I had useful experience at the grass roots to understand the motivations of teachers and students as Vice-Chancellor of Indore University (1967-72) and the obstacles in the way of developing a new university. The several headaches a university has during its growth in frustrating discussions with the State Governments, which actually do not have adequate resources, and with the University Grants Commission, have not been mentioned in the volume to avoid personal or less objective approaches. I have put all this aside in the background and tried to build up arguments on the basis of facts, and evidence and observations of eminent authorities, both Indian and international. To reduce the bulk of the volume which is very necessary today because of the high cost of paper and printing, I had to eliminate a great deal of supporting data, but that would not change the line of argument. The volume has become argumentative, compressed and sometimes terse but I hope I have succeeded in making it as objective as possible.

In the early enthusiasm of our independence and of official pressures and uninformed personal approaches, we might have committed many errors but we have to work now towards a balanced national system of Higher Education in relation to national goals and financial resources. This volume is indicative of new directions and dimensions to avoid making further blunders and to work out an organized system.

Acknowledgements

I am grateful to the University Grants Commission, New Delhi for grant of a fellowship under their scheme of preparing university level books. I am particularly grateful to the former Chairman Dr. D. S. Kothari and also the former Chairman Dr. George Jacob, who showed keen interest in the progress of my work.

My thanks are also due to Professor V. M. Dandekar, Director, Gokhale Institute of Politics and Economics, Poona, for providing me a research room in the Institute and other facilities. The trustees of the Sir Dorabji Tata Trust, Bombay, were kind enough to sanction a grant of Rs. 5,000 to the Library of the Gokhale Institute for purchase of books, reference books and journals for this work. This enabled the library to procure for my use the Carnegie Commission Reports and other books of reference. I am grateful to Professor R. Choksi, Director, Tatas, and to Shri G. K. Chandiramani, Director, Dorabji Tata Trust, for this grant to the Gokhale Institute.

The National Book Trust of India, New Delhi, have been kind enough to give a grant towards publication of the book enabling the publisher to reduce the price. I am grateful to the N.B.T. for the grant and also to Shri Ramdas Bhatkal, Director, Popular Prakashan, Bombay, for expeditious publication.

I express my deep sense of gratitude to Dr. C. D. Deshmukh, former Finance Minister, Government of India and Chairman of the U.G.C. and former Vice-Chancellor of the University of Delhi, who encouraged me to undertake factual and statistical studies right from the day I joined the Planning Commission till I left Delhi to join Indore University. I am deeply indebted to Dr. D. S. Kothari, former Chairman of the U.G.C., who spared time for discussions on several occasions and stimulated me to a line of research. I am also grateful to Dr. G. S. Mahajani, former Vice-Chancellor, Rajasthan, Delhi, Udaipur and Poona Universi-

ties, with whom I could exchange views locally in Poona and secure wise counsel. The responsibility for the interpretation of the data and for the arguments and the conclusions arrived at, however, remains entirely with me.

I am grateful to the Government of India and the U.G.C. for nominating me on the cultural delegation in 1965, along with Dr. D. C. Pavate, former Vice-Chancellor of Karnatak University and later Governor of the Punjab and Professor Nurul Hasan, the former Minister of Education, New Delhi, under the cultural exchange programme of the Indo-GDR agreement, which enabled me to visit Moscow University and the universities and schools in the German Democratic Republic and in West Germany, helping me to study the system of Higher Education in Europe.

I am grateful to many foreign scholars both American and British who have contributed to the thinking of this book. I am particularly indebted to the stimulating books by Lord Ashby (Sir Eric Ashby), Dr. Clark Kerr, Dr. J. A. Perkins and Dr. Philip Coombs, whose authoritative writings have been quoted and used by me. Dr. Perkins was kind enough to send me valuable publications of the International Council for Educational Development, New York, of which he is Chairman.

My thanks are due to Edmund J. Gleazer (Jr.), President and William G. Shannon, Senior Vice-President of the American Association of Community and Junior College (formerly American Association of Junior Colleges), Washington, for inviting me to attend the American Association Junior Colleges International Assembly from February 26 to March 6, 1970 at Honolulu, Hawaii, U.S.A. It was the first international assembly on manpower development sponsored by the American Association of Junior Colleges. This enabled me to meet many friends and educators from the U.S.A. and other countries (these were more than 2000) who participated in the sessions of the assembly including many Presidents of junior and community colleges in the U.S.A. I was also able to visit a number of universities and community/junior colleges of the U.S.A. during this visit. Earlier I had opportunity to visit a few of them when I attended the Comparative Education Conference at Berkeley, California, in March 1966. I visited then the office of the American Association of Junior

Colleges in Washington where I could secure useful material. I thank all those who assisted me during my visits.

The draft manuscript of the book was sent to three experts appointed by the U.G.C. for any suggestions and comments. I am grateful to Dr. G. S. Mahajani, Ex-Vice-Chancellor, University of Poona, Professor J. N. Kapur of the Indian Institute of Technology, Kanpur, and former Vice-Chancellor of Meerut University, and Shri G. K. Chandiramani, former Additional Secretary of the Ministry of Education and at present Director, Sir Dorabji Tata Trust, Bombay, who were the UGC experts, for going through the draft and for making valuable suggestions. I am also grateful to Professor A. R. Kamat of the Gokhale Institute who took pains to go through the manuscript and helped me in carrying out modifications and corrections in the light of his critical comments.

Thanks are due to the Librarian Shri M. V. Sovani, Gokhale Institute and his staff for assisting me with necessary materials; the administrative staff of the Gokhale Institute and particularly Shri D. P. Apte, Registrar, Shri P. S. Bhagwat, Deputy Registrar and Shri R. A. Kulkarni, Accountant, for assistance at various stages; Shri N. G. Phadke and Shri S. K. Athale who provided stenographic and typing assistance; my old colleagues in the Ministry of Education, the Planning Commission, the University Grants Commission and the University of Indore who often inspired me into thinking of problems, which became the theme of this book; the Ford Foundation, New Delhi, for sending me important staff documents, out of 12 volumes, prepared by them for a picture of India in the 1970's; librarians of the British Council Library, Poona and the British Council Library, Bombay, who not only allowed me to borrow materials I needed but also the Bombay Librarian drew my attention from time to time to some of the latest books and articles in journals pertaining to the subject, sending me back numbers of *The Times Higher Education Supplement* and *The Universities Quarterly;* USIS, Bombay and Delhi, for helping me with information about the latest American publications available in their libraries; the librarians of the Planning Commission, of the UGC library, the University of Indore library; the librarians, University of Poona and University of Bombay; Dr. Amrik Singh, Secretary of the Association of Indian Universities, New Delhi, and Shri Anjni Kumar for some time officiating Secretary of the Association for the use of journals from their library.

Finally, I am deeply indebted to my family, to my wife, two daughters and their husbands, and my son and his wife, whose constant inquiries about the progress of my work and co-operation encouraged me to finish it in time. Many other relatives and friends have also encouraged me in this endeavour. I am grateful to them all.

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"Within each country education can no longer be regarded as a series of unconnected enterprises, conducted at different levels with purposes independent of each other. Education within any Society must be considered as a unified whole, its parts in balance and the balance in turn reflecting Society's requirements and the resources available to meet them".

—*Dr. James Perkins' Summary Report of the International Conference on World Crisis in Education, October 1967, at Williamsburg, Virginia*

PART I

INTRODUCTION AND PRESENT POSITION

CHAPTER I

INTRODUCTION

The three parts of this introduction deal with (I) Persistence of the Problems, (II) Modern University—Development of the Concept and (III) The Need for Dialogue and Debate.

I *Persistence of the Problems*

The title of our study, "Problems of Higher Education in India" does not indicate by any means a new subject; for problems for universities and colleges have always existed right from the establishment of the three universities of Calcutta, Bombay and Madras in 1857.[1] But the irony is that though the Education Commission of 1882, the Indian Universities Commission of 1902, the Sadler Commission of 1919, the Auxiliary Committee of the Simon Commission known as the Harteg Committee of 1929, the Sargent Report of 1944, the Radhakrishnan Commission of 1949, the Sampurnananda Committee Report of 1962 and the Education Commission Report of 1966—all have raised nearly the same problems and made recommendations for improvement, problems appear to persist in different dimensions. Of course in any development certain problems are bound to occur, some arising out of solutions to the earlier problems and some related to sheer quantities. It is not as if steps have not been taken by the central and state governments and universities to programme on the lines of some of the recommendations of the Commissions but all efforts have more or less resulted in the present state of despair for two major reasons, mounting numbers and financial inadequacies.

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[1] See e.g. James, H. R., *Problems of Higher Education in India*, Bombay, 1916 and James, H. R., *Education and Statesmanship in India* 1797-1910. London. 1911 (reprinted from *Calcutta Statesman*, January-March 1911)

The latest among these reports is the Education Commission Report (1966), the sum and substance of which is that education is necessary for modernisation of the nation and social transformation and so more funds have to be provided for more education. They projected larger numbers for the universities and felt that nearly 6 per cent of National Income (or GNP) should be provided for total education against about 2.9 per cent today.[2] This appears to be hardly possible.

Indian Studies

A critical analysis of different aspects of the problem is found in chapters by learned authors published in the *Higher Learning in India* (1974) edited by Dr. Amrik Singh and Philip G. Altbach. But since these are articles by different authorities, there is no unity of purpose running through them and while they have analysed the situation a programme of action may not flow from them. Among the studies of the present situation this is one of the best we have on record.

Foreign Studies

There are many foreign studies and the best historical and ecological analysis is by Sir Eric Ashby (now Lord Ashby) in his scholarly work, *Universities British, Indian, African* (1966). There are studies and articles by Edward Shils, Philip G. Altbach, Susanne Rudolph & Lloyd Rudolph, Eak[illegible] and a number of Indian and foreign scholars have written books and articles criticising the present system and sometimes suggesting remedies. Organized action does not follow immediately after such criticism but academic awareness is generated and of course the problems persist.

Prominent among the many foreign authorities who have been thinking on the problems of higher education are firstly Clark

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[2] *Report of the Education Commission* 1964-66, (REC), Ministry of Education, Government of India, p. 473, Table 19.9.

Kerr who made his debut on the thinking of university problems in his famous work *The Uses of the University* (1964).[3] His analysis is objective and incisive and it applies in many ways to Indian conditions though primarily it is a comment on the western universities. Clark Kerr had more contributions to make after he resigned from the Presidentship of the California University and joined the Carnegie Commission on Higher Education as its Chairman from 1968 to 1974. At present, he is Chairman of the Carnegie Foundation of Advancement of Teaching (CFAT)[4] of the Carnegie Commission on Policy Studies in Higher Education; and we shall have more incisive studies of this complex area.

J. A. Perkins, former President of Cornell University, and now Chairman of the Board of the International Council for Educational Development, New York, which has its main concern for the future of education and its role in social and economic development has analysed the problems in the book, edited by him, *Higher Education: from Autonomy to Systems* (1972) containing important contributions from distinguished authors. Besides there are a number of other thinkers like Reiseman, Gardner, W. R. Niblett, Philip H. Coombs who in recent times through publication of books, articles in journals and seminars and conferences have raised fundamental issues about higher education as a national system and suggested strategies for educational development aided by the techniques of management and systems analysis of higher education.

World Problem

Today higher education is a world problem and the scholars of one country have so much in common with the scholars of advanced as well as developing countries. Fundamentally problems are very much alike such as those of mounting enrolments, rising costs, relevance of university curriculum, shift in priorities along with the generation gap, the new culture of the young and a rising tide of scepticism about objective rational thought resulting in the crisis of governance of higher institutions. These ideas are reflected in writings, prominently of J. A. Perkins, Clark Kerr and Eric Ashby, which could guide us in analysing our own problems.

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[3] Kerr, Clark, *Uses of the University*, Harvard University Press, Mass., 1964.

[4] News item in *AACJC Community & Junior College Journal*, April 1974, p. 59.

New Ideas

The new ideas that emerge from the thinking of today are organization and management of higher education within the resources available; systems analysis; examination of the inputs and outputs in the system; relations of government and universities and colleges; restructuring of education with a view to saving money and time and understanding the needs of the nation and continuous deliberations on problems and solutions through academic discussions. Several studies and reports particularly those of the Carnegie Commission to which the author is deeply indebted make one feel that while basically the crisis in higher education is universal, every nation must solve its own problems and this will depend on a deeper analysis of the situation and not dependence only on governmental reports. Government has to be guided by scholars who have to make themselves felt through organized work. This is because the requirements of teachers and students in India are almost infinite and the resources are limited. Any solution that more resources should be provided is only a wishful statement and will not result in action because programmes for an economically backward country have to be tailored to availability of funds. This underscores organizational problems and efficient and effective uses of investments. These have been discussed in the present study.

Minor Problems

No specific chapters are included here on problems of examination reform, of medium of instruction, autonomous colleges and of students and teachers; for in the first place they have been discussed during the last 20 years in various documents and particularly reports of the commissions of 1949 and 1966 but application of recommendations has been difficult. These problems have been mentioned at relevant places, but no specific programmes could be suggested. This is because unless the inner forces of an organized system are strong enough to initiate action for solution of problems no recommendation will work.

It has been found in practice that action programmes have not followed the recommendations. The reason is to be sought in the need for reorganization of the system with a fixed responsibility, restructuring of education and managerial efficiency. Once these are effected, problems get sorted out for solution by identifying circumstances that create them. In the present structure the responsibility for higher education is far too diversified and distributed in the uncoordinated areas of action of central and state governments, the universities and the public.

Weak School System

Besides a good many of these problems have roots in our weak school system. The suggestion in this study is that we should concentrate only on the 10-year-school organization—and not the 12-year one—and strengthen and improve it to its utmost as in the USSR. This will require not only utilization of resources in men and money but also an organizational discipline. For example, the unfair means employed in university examinations have their roots in the school system where such practices are connived at. Reports have been there that both in schools and in colleges some teachers as examiners are often indulgent and in secret sympathy with students who use unfair means. Organizational efficiency has to be encouraged to enable students to form good habits and develop a sense of fairness and justice. This requires many case studies and research by universities. Any system that is introduced to replace the present system of examination may be better in some respects but may also have the same defects if basic honesty is not a part of the fabric of the education system. The base is a strong 10-year school which is manageable for administration.

Medium of Instruction

The best exposition of the problem of medium of instruction has been given by the Education Commission[5] but a general approach should be that at the higher education level the language that can be the medium of instruction will be the one where learning materials are available. This does not rule out English. Materials are gradually being made available in the Indian languages. Even for this a good knowledge of English is indispensable. In all foreign universities a mastery over another useful language is often a compulsory adjunct in which significant materials would be available and since we have gone far with English which by sheer accident of history has assumed the importance of an international language after the two world wars, a good mastery of the language would appear to be desirable even if the medium of instruction was an Indian language. For universities are international institutions and use of an international language will be a desideratum. The main point about the medium of instruction and learning of languages is availability of scholarly and reliable books and use of the language for the occupation the student would accept later. Certain problems have no easy solutions and the great debate[6] is likely to be interminable. Expert scientists and philologists point out that a useful second language should be introduced early at the school stage when the brain cells which store language impressions are flexible.[7] Perhaps in a democracy discussion has to be allowed to go on and a university has to adhere to some compromise formula, but discussions among academics, association of universities and administrators have to be more decisive and programme-oriented.

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[5] REC, pp. 13-16, 291-293.

[6] See Shah, A. B. (Ed.), *The Great Debate: Language Controversy and Higher Education*, Bombay, Lalvani, 1968. John, V. V., *Education and Language Policy*, Bombay, Nachiketa, 1969. Also articles by M. K. Varma, 'English in Indian Education' and by D. P. Pattanayak, 'A Case for Indian Languages' in *Higher Learning in India*, op. cit.

[7] The best exposition of this thesis is given by Dr. Wilder Penfield in his two radio talks from Delhi, published by Planning Commission, entitled, *Human Brain and the Learning of Secondary Languages*, New Delhi, 1957.

Disquiet Among Students and Teachers

Students' revolt and indiscipline, teachers' status and living conditions have been analysed in the *Education Commission Report* and it is not necessary to summarise or comment on the remedies suggested. No external remedies and recommendations seem to be effective. Greater responsibility to solve these problems lies with the universities and not the government which academically is an external force.

Fundamental Issues

The question to be answered is what should be the future of higher education in which progressive reforms are the problems of all thinkers and in what direction should developments take place?

Educational thinking today cannot be isolated. Ideas have to be borrowed from various experiments of foreign countries as we are doing in science and technology. Whatever happens in advanced countries affects the scholars of India for we have come to a stage where we are producing some of the best scientists, agricultural and medical experts, outstanding engineers, technologists and social scientists for whom there is a demand in the world market. It is not necessary to discuss the pros and cons of the brain drain because it is only a negligible percentage that goes abroad for employment and for research opportunities. A good exposition of this problem has been given by Shri A. K. N. Reddy in his contribution on 'The Brain Drain' in *The Higher Education Learning in India.*[8]

Those who work in Indian universities in postgraduate departments, in national laboratories and national institutions as well as research centres have made a significant contribution to scientific research already, and they have many counterparts in foreign universities with whom they need to have communication to develop themselves. Academic dialogue in seminars and conferences as well as in the form of books and contributions to learned journals has enhanced the reputation of Indian scholars in the learned circles of the world. Whatever happens in other countries gradually affects the academic scene in India, from the use of atomic energy for peaceful purposes to the use of computor for scientific work and for industrial and management organizations. Thus we have taken various steps towards modernity and yet our universities are not modern enough to take advantage of the new opportunities.

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[8] Reddy, A. K. N., 'The Brain Drain' in Amrik Singh and P. G. Altbach, *The Higher Learning in India*, Vikas, Delhi, 1974, pp. 373-374.

In this spirit of progress and change greater responsibility has to be placed on the universities and they should be allowed to settle their own problems by discussion, publication of studies, contact with scholars abroad and in India and continuous concentration on attempts at solutions of the problems as in scientific laboratories.

Universities and the Government

From Curzon's time, i.e., the Indian Universities Commission of 1902, to date we have seen that Indian universities have tended to depend so much on the government and their reports, not only for financial stability but also for academic policies that state governments as well as central government have started feeling that universities can be handled as some of the departments of the state machinery. Curzon[9] felt that since universities were places where seeds of the new Indian national movement and sedition were sown, they should be controlled by the government and more government nominees should be appointed on the syndicates, academic councils and senates of the universities. It is difficult to say that this tradition does not continue today in a different way and with the same dominant voice of the government.

Government feels that this does not mean that there is an attack on the autonomy of the universities because government could say that within the framework of law teachers were free to express their opinions and views. However, academic freedom means more than that; it means governance of the universities

[9] Basu, Aparna, *The Growth of Education and Political Development in India*, 1898-1920, O.U.P., Delhi, 1974, pp. 4-8, 10-12, 93-96.

by university men and less restrictions through statutory conditions and political pressures on their working. The time has come when greater freedom to universities to manage without governmental pressure or influence their courses of study, to appoint their own teachers, to prescribe their own methods of teaching and admit students with the minimum qualifications recommended by them would perhaps solve many of the problems of Indian universities.

Paradigms

Since independence we have been following with greater intensity the principle of internationalization of Higher Education. Indian institutes of technology were established, inspired by the MIT model of the U.S.A. and in actual execution the Government of India sought assistance from nearly all donor developed countries. Kharagpur got assistance from the UNESCO, i.e., from many advanced countries; Bombay from the USSR through the UNESCO; Madras from West Germany; Kanpur from the USA and Delhi from the U.K. The agricultural universities, which number 22 out of which about 4 are dynamic,[10] have been modelled on the U.S. pattern and there is an element of land-grant colleges and universities of the U.S.A. in their organization. The UGC scheme of advanced centres and summer institutes is a copy of the American system and the new institutes of business management at Ahmedabad and Calcutta are of the American pattern. Sophisticated equipment for departmental laboratories has to be imported as also 70 to 80 per cent of books and journals in the university libraries. There are besides institutions which have received aid from foreign foundations and from foreign countries and have followed certain foreign patterns.

A developing country has to follow certain models or paradigms and most of these institutions mentioned above have strengthened our system of higher education. We should similarly consider the successful pattern of junior/community colleges of the U.S.A. which has been followed with some modifications in Canada, Japan, Sri Lanka and other countries. We have also suggested that the pattern of school education of the U.S.S.R. is best suited to India. We should similarly modify the 'open university' concept of the U.K. to suit our conditions in relation to how it is being experimented in the U.S.A.

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[10] See Thaper, Ashok, 'The Agricultural Universities: Pilots of Rural Change' in *Higher Learning in India*, op. cit., p. 400.

For a hundred years while following the British system of both school and university education we have never had the efficiency of the British secondary schools nor have we established the high traditions of under-graduate training of the British universities. Perhaps the reason is, that apart from financial inadequacies, British institutions have evolved from the people to government management and the reverse has been the process in India. The post-graduate departments which have been established after 1955 in different universities with a large number of professors and readers have been planned on the pattern of American universities but all these now need to be organized into an Indian system. That would call for tact, talent and imagination illustrated by Japanese methods.

II *Modern University—Development of Concept*

Though the universities of Oxford, Cambridge, Paris, Salamanca had flourished in Europe for many centuries in the mediaeval spirit of training men primarily for religion or law or teaching, the concept of modern university was evolved in the latter half of the 19th century very much later than the beginning of the industrial revolution both in Europe and in America.

Three authorities on strands of history forming a synthesis for the concept of universities today are significant. First we have *Idea of a University* (1852-54) by Cardinal Newman,[11] second, Abraham Flexner,[12] with his concept of 'Idea of a

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[11] Newman, John Henry, *The Idea of a University*, Longmans Green & Co., New York, 1947 Edition.

[12] Flexner, Abraham, *Universities: American, English, German*, O.U.P., New York, 1930.

Modern University' (1930) and third, Clark Kerr[13] with his 'Multiversity Concept' (1964).

Newman's Idea

Newman delivered his lectures on the subject at the time of founding the University of Dublin in 1852. He was typically an Oxford man of the time and Oxford had a high protecting power of all knowledge and science which produced 'gentlemen' for preservation of society. Therefore he favoured liberal as against useful knowledge which according to him was trash. Newman's main idea was that knowledge was capable of being its own end and can be its own reward. He was not in favour of research in the universities because he felt that other institutions should carry on research outside the university. For, the main objective of university was to raise the intellectual tone of society, at cultivating the public mind as well as refining national taste. He had a feeling that any Oxford man could fill any post with credit and master any subject with facility. Therefore, he was against technical specialization.

Newman's ideas of 1852 were being questioned in his own time by the developments taking place in German universities.

The University of London established (1836) as a federative type of university, i.e., federation of some of the biggest colleges, University College which was opened in (1828) and King's College (1831),[14] had started making its impact as a university for multi-purpose courses in relation to the needs of modern society. This affiliating type of university was transported to India and the British colonies of the Commonwealth.[15] However, in the U.S.A. about this time, German universities became a model for graduate studies and research work. To quote Clark Kerr, "This beautiful world (of Newman) was being shattered forever even as it was being so beautifully portrayed. By 1852, when Newman wrote, the German universities were becoming a new model. The democratic and industrial and scientific revolutions were all well under way in the western world. The gentleman 'at home in any society' was soon to be at home in none. Science was beginning to take the place of moral philosophy, research the place of teaching."[16]

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[13] Kerr, Clark, *The Uses of the University*, Harvard University Press, 1964.

[14] See Ashby, Eric, *Universities, British, Indian, African*, Wiedenfeld & Nicolson, London, 1966, p. 24.

[15] Ibid., p. 63.

Flexner's Concept

The second phase of development has been described by Abraham Flexner as "the Idea of Modern University". His *Universities: American, English, German*[17] was published in 1930 and has been known for its racy style and original outlook. He found that the universities had gone far ahead of Newman's concept by 1930 and they have become a part of the social evolution in the post I-war period. Flexner was rather impressed by the German model and Americans were already passing through a stage of evolution from the Oxford-Cambridge style of colleges to the German type of emphasis on research and not merely production of the elite. Added to this was the revolution that had taken place in America on account of land-grant colleges described so well by Ashby.[18]

The new developments were that departments and specialised institutes for research came into existence in the universities. Big research libraries along with laboratories filled the campus of the American universities. Newman's idea of finding out eternal truths in a natural order was being replaced by the work of the specialists in different departments of science, technology and social sciences. Therefore, Newman's universal liberal man was replaced by a specialist or a technocrat.

However, the idea of a Modern University of Flexner was soon to get a shock in the U.S.A. itself for Flexner was in a large sense conservative. He did not like vocational schools, teacher training schools, uplift agencies, business management, etc., which according to him were incredible absurdities, or a host of inconsequential things. "They needlessly cheapened, vulgarised and mechanised themselves. Worst of all, they became service stations for the general public."[19]

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[16] Kerr, Clark, op. cit., p. 4.
[17] Flexner, Abraham, op. cit.
[18] Ashby, Eric, op. cit., pp. 15-18.

Flexner thought that Harvard was going the wrong way. "He wanted Harvard to disown the Graduate School of Business and let it become if it had to survive at all, the Boston School of Business. He would also have banished all Schools of Journalism, and Home Economics, football, correspondence and much else."[20]

Newman's Influence in India

The elite in Indian society had then cultivated the habit of considering as authority whatever the Western writers had said.[21] Centuries of feudalism had enmeshed the educated Indian moving towards emancipation and those who rebelled and were original were argued out by a great deal of sophistry and quotations from authorities. It took Gandhiji several years to impress people with his original views on a scheme of national education.

And so what was out of date in the western evolution of the history of higher education was still current among the learned university men and women of India.

Multiversity Concept of Clark Kerr (1964)

Even when Flexner was writing in 1930 there were already developments towards the concept of a multiversity, the third phase of change, in the institutions of higher learning. Flexner has described London not as a university but a federation of colleges; however, London was planning altogether a new type of university with its new buildings and new programmes of study

[19] Kerr, Clark, op. cit., p. 5.

[20] Kerr, Clark, op. cit., p. 5.

[21] We were influenced by Newman right upto 1950, when the Radhakrishnan Commission and later in 1966 the Education Commission appeared to break new ground in relating higher education to the needs of India. However, Newman had become a classic among the elite of India and the echoes of "Idea of a University" were heard in most of the convocation addresses of Chancellors, Vice-Chancellors and distinguished educationists for a century.

in science and social sciences; and it has changed over the last 40 years for research, post-graduate and professional schools. Flexner thought that a genuine university was an organism characterised by highness and definiteness of aim, unity of spirit and purpose. As Clark Kerr has put it, "the 'Modern University' was as nearly dead in 1930 when Flexner wrote about it, as the old Oxford was in 1852 when Newman idealised it. History moves faster than the observer's pen. Neither the ancient classics and theology nor the German philosophers and scientists could set the tone for the really modern university—the multi-university."[22] The multiversity and the city of intellect are concepts propounded by Clark Kerr to describe what is happening in the universities today in the USA, influencing the other parts of the world. To quote Clark Kerr again, "the Idea of a Multiversity has no bard to sing its praises; no prophet to proclaim its vision; no guardian to protect its sanctity. It has its critics, its detractors, its transgressors. It has its barkers, selling its wares to all who will listen —and many do. But it also has its reality rooted in the logic of history. It is imperative rather than a reasoned choice among elegant alternatives."[23]

Just as in the mediaeval universities, the leaders were Oxford, Cambridge and Paris, for the modern university of Flexner there were the German and American models, for the multiversity. the three sectors of universities in the U.S.A. became leading lights. First was the group of universities from Boston to Washington including Harvard, Boston and Massachusetts Institute of Technology, which group produced Nobel Prize winners and a large number of members of the National Academy of Sciences.

The second group of universities was the western California coast of the U.S.A.[24]

The third group of American universities is what is known as the Big Ten and Chicago, which we describe first. These are 11 universities which formed a Committee on Institutional Cooperation (CIC). It is a consortium of 11 large middle western universities in the U.S.A., nine of them publicly and two privately supported. These are Chicago, Illinois, Indiana, Iowa, Michigan, Michigan State University, Minnesota, North Western University, Ohio State University, Purdue and Wisconsin. The consortium was established in 1950, at first as an athletic league, but later developed as an academic association. During the last 20 years the CIC group has developed in great strength and it has been reported that 35 per cent of the nation's annual production of doctorates is accounted for by them. They include a student body of half a million (5 lakhs), a faculty of over 40000 and billions of dollars of buildings, grounds, libraries and scientific research equipment.[25] They work through various committees set up for specific purposes and for limited periods of time. They have decided that there need not be unanimity for a programme to go forward. However, the committees discuss problems of planning and new programmes of mutual interest and benefit, out of which new ideas, experiments and innovations and directions of growth emerge.

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[22] Kerr. Clark, op. cit., p. 6.
[23] Ibid., p. 6.
[24] Ibid., p. 91.

The massive diversified complex of the University of California which has produced 36 per cent of the Nobel laureates in science and 20 per cent of the members of the National Academy of Sciences[26] has an enrolment of more than a million students (10 lakhs). This has been the development from 1869 when they had admitted a handful of students. The number of separate campuses has grown from one to more than 120 with 11 university centres. Its annual budget is 1½ billion dollars. (This means Rs. 12000 crores, many times the budgets of all the universities in India.) In terms of sheer magnitude of growth it will be difficult to find a parallel for this elsewhere in the world.[27]

The three layers are the *University*, the *State Colleges* and the

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[25] *Higher Education From Autonomy to Systems*, James A. Perkins, Editor, International Council for Educational Development, New York, 1972, p. 78, article by Fredrick H. Jackson, on 'The Committee on Institutional Cooperation—A Private Regional System'.

[26] Kerr, Clark, ibid., p. 92.

[27] Perkins, J. A. (Editor), *Higher Education from Autonomy to Systems*—'California Three Layers of Coordination', article by N. J. Smelser, p. 23.

Junior Colleges. These layers make a multiversity which we propose as a model for India.

The university is at the apex of the system for research, professional training and granting of degrees. The other parts of the university in the California complex are not affiliated to this apex in the sense in which colleges are affiliated to universities in India. There is autonomy for every sector but there is coordination, academic and administrative, at the apex.

The state colleges which are the second segment of the university grant their own degrees. The third segment is the junior colleges of California or community colleges which were started in 1907; by 1969 the total enrolment in these colleges shot up to more than 7,00,000. The junior colleges were incorporated into the system of higher education by the California master plan of 1960, and the legislation specified that the junior colleges should cover three areas—(1) planned collegiate courses for transfer to higher institutions, (2) vocational and technical fields leading to employment, and (3) general arts courses.[28]

The Boston group similarly is of great academic significance as Harvard, M.I.T. and Boston have been the leading lights of the academic world. The picture of the peaks of academic advance in the U.S.A. is a reflection of the varied activities of universities described as 'multiversities'. This development appears to be inevitable for any modern university system in any country. However, the main issue today even in the U.S.A. as in India is the financial limitation against the prosperous growth period of 1955-1965. All American colleges and universities are in the process of more or less rigorously weeding out non-essential functions which they took on in periods of prosperity. Some allege that the colleges and universities will emerge stronger after facing the financial adversity.

Towards Multiversity in India

We have mentioned three academic peaks in the U.S.A. There is a fourth one developing in the Texas area. These clubs are significant in keeping up the morale of the academic and research personnel of the different universities; and other universities also try to compete and attain excellence in different fields.

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[28] Ibid., p. 25.

Unfortunately in India we have had no such competitive peaks of academic endeavour in spite of the efforts of the UGC to establish advanced centres in some of the select universities. Recently out of 30 centres of advanced study, 17 in science and 13 in humanities and social sciences, seven centres are proposed to be closed for want of research effort required for fulfilling the conditions of the advanced centres. The Indian Institutes of Technology, the Bangalore Institute of Science, the Engineering universities at Pilani, Roorkee and Jadavpur and at least half a dozen agricultural universities are doing work of high international standards of scholarship. The central universities of Delhi, Banaras, Aligarh, Vishvabharati, Nehru and the ones proposed to be established in Hyderabad and Pondicherry have a distinct advantage over the other universities so far as capital and recurring expenditure are concerned as they are all borne by the Central Government, through the UGC. This is often 3 to 4 times more than that spent by the oldest universities of Calcutta, Bombay and Madras. Competing with them are also such universities as Allahabad, Lucknow, Jaipur, Bangalore, Osmania, Baroda and a few others which with the limited funds of state governments have problems of developing into progressive universities. But these have yet to form strong centres like the peaks in the U.S.A.

The Indian Institutes of Technology are really national institutes in the sense that admission to them is by an all-India open competition and the best in the country are admitted every year. No state government, therefore, could have a grudge against the high expenditure involved in the institutes with a per capita recurring expenditure of about Rs. 5000 against about Rs. 1500 in a state engineering college.* Besides they have made a name in the universities of the world for academic standards in science and technology. The agricultural universities planned on the pattern of the U.S. land grant colleges have difficulties of securing able students and staff. The next step is that both the IIT's and the agricultural universities gradually change into multi-faculty

* An estimate of 1962 done in the Planning Commission.

universities with emphasis on technology and science, and agriculture, respectively; like the land grant universities of the U.S.A. they should gradually admit students in all disciplines and faculties and make them multiversities. This is a logical development during the next few decades and steps already taken of adding of home science and pure sciences to agricultural universities and social sciences and humanities in the IIT's should gradually take the shape of full degree courses in all faculties, emphasizing the integration and unity of knowledge.

The central universities do not enjoy the advantage of the IIT's; and in a sense they are local universities like any other state universities. Therefore, the Central government's special assistance to these institutions creates problems for the other universities in India of unequal distribution of central funds collected from the states.

III *The Need for Dialogue and Debate*

Potential for Academic Debates

The Association of Universities in India (AUI), formerly known as the Inter University Board (IUB), has a great potential for coordination and discussion of academic problems but it does not function like the committee of Vice-Chancellors and Principals in the U.K. The latter meets once a month, while the Indian counterpart has an annual meeting and meetings of the standing committee are about four in a year. Except for the secretariat which has no funds for independent surveys and research studies there are no permanent features in the organization as 25 to 30 per cent of the Vice-Chancellors change every year and in the discussion there are no frank criticisms offered about the UGC schemes, the Government of India policies or the executive actions of the state governments. A tradition of healthy and constructive criticism of the government policies has yet to be established. The chief difficulty of all universities is finance and this puts every other problem into the background. Since the government is the major financier, they are likely to control policies of universities and inhibit free criticism from academics.

The Problem of Costs and Numbers

Increasing enrolments and rising costs are universal problems and it should happen that rising costs would prompt measures to retard the rates of increase. However, this does not seem to happen in India on account of rising expectations. The normal consequence is to raise the staff-student ratio as high as 1 : 40 or 1 : 60 in some colleges at the undergraduate level as has happened even in some European university faculties or departments. There are also other problems like those of the part-time teaching staff, the junior staff, teaching assistants who are doing Ph.D. work, research fellows who may be given teaching assignments and fellows who are doing post-graduate work and assigned some tutorial work. These measures of economy are useful devices for the growth of colleges and the universities but such economy measures are not always popular in India for the tendency is to appoint a higher category of personnel in the teaching staff. Delhi University departments do not like to appoint even lecturers; they want only readers and professors, and if possible more professors and readers even for the work of demonstration in laboratories. So while economy measures are introduced by state universities as they are not sure of the grants, there is no attempt at economy and efficiency in the central universities for even the UGC could be convinced for the time being that more teachers in higher posts would raise standards. This is not even true in advanced countries of the U.S.A. and the U.K.

Devices for Numbers

There is the inevitable limitation on technical and medical admissions where the German universities have introduced a system of quotas on admissions and we have similarly fixed seats in relation to available laboratory and other facilities and manpower requirements. This results in larger enrolment in social sciences, commerce and humanities. What has happened in India is that with the larger output of schools and the limitations on admissions to professional courses where the outturn is not easily employed, there is rush for arts and commerce courses as well as the general science courses. This is inevitable because a generalist may be wanted in any area of employment while the narrowly trained professional man has a limited occupational field. It is not possible to provide facilities for the mounting numbers and increase in colleges at the rate of 350 to 400[29] per year happening today is not the answer. We have therefore suggested the introduction of the device of *Community and Junior* colleges for training the middle level personnel as well as the *Open University* for those whose social and academic ambition cannot be satisfied without a degree from the university. We cannot easily say that the rapid expansion in the relatively less expensive courses of humanities and social sciences is the by-product of the financial squeeze on higher education. But it has essentially made us take a second look at the internal governance of universities and structural and systems analysis.

There is also another device that is being employed in some of the countries. France, Sweden and Germany have taken steps to shorten the study period required to obtain a first degree,[30] and are simplifying requirements for advanced degrees. "Everywhere university systems plagued by high drop-out rates are seeking to reduce them and to eliminate so called perennial students."[31]

Rising Costs Involve Greater Government Control

Rising costs affect the universities and colleges externally as well as internally. For example, in Great Britain the universities' influence on government decisions with respect to public funding of universities has diminished. Until a decade ago the universities jointly presented their needs for funds to the government through the University Grants Committee and typically got almost what they had requested. This is because "the universities grants committtee (UGC) represented to government interests of the universities, serving as a buffer between the dons and the government. In recent years the role of the UGC has become less unilateral. To help assure the universities of the funds they need, it now presses them to rationalise what they do. It is more active in telling the universities what in its view (and that of the government) would best respond to national needs. It suggests which university should teach in fields where limited student demand and expensive resources indicate consolidation."[32]

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[29] See *UGC Annual Reports*, 1971-72 and 1972-73.

[30] *Higher Education from Autonomy to Systems*, Ed. Perkins Article, Barbara B. Burn, 'Comparative Lessons on National Systems', p. 245.

[31] Ibid., p. 245.

This is also happening in the U.S.A. The various projects sanctioned by the different agencies of the federal government in the universities which evoked tremendous research activities and built up strong departments of research in American universities from 1955 to 1965 are gradually facing difficulties for want of adequate funds, just as the pressure of rising costs has transformed the British UGC from an instrument largely of one-way communication to government asking various questions in regard to the needs of universities. In India the state governments question the universities the propriety of accepting the UGC schemes when the state governments have no matching funds. What is the way out?

Central Responsibility

In two chapters on 'The UGC and Central Responsibility' and 'Coordination of Higher Education in a Federal System' we have examined this problem and suggested that since in any case the central government is taking greater financial responsibility they should be able to deal with various administrative issues through the organization of a Central Ministry of Higher Education.

It seems to us that in India even under the present UGC Act the UGC has to examine the current and the capital expenditure of all universities and under the provisions of the amended Act of 1972 they could come to the assistance of the state universities for maintenance as well as development grants. The state universities could be on par with the central universities, so that national funds do not benefit only a few central universities. Allahabad and Lucknow are instances of state universities which are languishing for want of funds and are having overdrafts for several years. Once these were leading national universities of India and it should be a concern for the Central Government to see that such universities are assisted for maintenance as well as development after a thorough probe into their working. However, since the present UGC will find it difficult to take such a revolutionary step we have suggested the establishment of a Ministry of Higher Education at the Centre, in which the UGC could merge or the UGC could be converted into the proposed Ministry. It would be answerable directly to Parliament and the people.

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[32] Ibid., p. 245.

This takes us to the problem of coordination which will be discussed in the chapter on systems analysis, structural changes and the two chapters mentioned above.

Perkins points out that the 'evolution of systems of higher education' is a new phenomenon that has been largely unexamined by scholars, politicians and administrators.[33]

New Approaches

Our main purpose throughout the book has been to link up the university problems in India with the world situation, on the assumption that the Indian universities today belong to a large family of world universities. They possess the second largest number of students and teachers with about 110 universities, 4000 colleges, 4 million (40 lakhs) students and nearly 200 thousand teachers. They have shown potentialities of those important elements of excellence which characterise universities and they have yet to be emancipated from complete government control under which they have been languishing for more than a century. This liberation, however, is a painful process and has to be brought about by the universities themselves, when they develop into modern 'multiversities'.

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[33] Perkins, J. A., op. cit., 'Future of Coordination', p. 249.

Since, however, financial inadequacies will always persist, the major problem for us is reorganization in such a manner as to secure economy and efficiency. Systems analysis, cost benefit analysis and reorganization of the structure are the major problems emphasised in this study.

CHAPTER II

EDUCATION COMMISSION AND AFTER

Central Policy from 1962 *to* 1964—*A Forgotten Chapter*

The report of the *Committee on Emotional Integration* (1962) is still one of the valuable documents in regard to the reorganization of education and integration of higher education with secondary education. They suggested that the educational system should be reorganized into a pattern of 10+2+3 where the *two* could be in colleges or separate institutions, called junior colleges, or in special cases attached to high schools.[1] The report was shelved by the Ministry of Education and in a short time they thought it was necessary to prepare something like the Sargent Report through the work of the standing committees of the CABE.[1a] They constituted four standing committees on primary education, secondary education, university education and social education according to a letter to the members dated 2-6-1962,[2] almost about the time the Sampurnananda Committee was signing its report on 10-8-1962.

This is perhaps a forgotten chapter of the development of educational ideas at the centre from the publication of the Sampurnananda Committee Report, 1962, to the appointment of the Education Commission in 1964. We could ask why action did not flow from the recommendations of the several commissions and committees appointed upto 1964 and secondly why the Education Commission was suddenly appointed in 1964 because the resolution of the Government of India setting up the Education Commission dated 14-7-1964 does not refer to any specific need. Besides there is no reference in the report to the two years' work of the Standing Committees of the CABE from June 1962 to March 1964 when the attempt at preparing a comprehensive report by the committees was abandoned.

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[1] *Sampurnananda Committee Report*, 1962, Ministry of Education, Government of India, p. 40.

[1a] CABE—Central Advisory Board of Education, M. of Ed., Govt. of India.

[2] Ministry of Education Memorandum about constitution of four standing committees of the C.A.B.E. No. F1-10/62-SE dated 2nd June 1962.

The work of the standing committees of the CABE was to be finished in a year but went on almost endlessly. The members of the four committees numbered nearly 45 to 50, in addition to a number of officers of the Ministry. The Secondary Education Standing Committee itself consisted of about 15 members, of whom hardly five or six attended meetings at different places in the country. The total amount which cost the country was estimated to be of the order of about Rs. 3 to Rs. 4 lakhs and the whole work had to be abandoned because no appreciable results had come out after two years of efforts and the new minister thought there were too many committees which in the Ministry of Education were doing infructuous work and felt that in streamlining the work of the Ministry of Education, many of the all-India councils and committees should be abolished.

On account of political changes and the Congress party's acceptance of the Kamraj Plan asking many ministers to do party work instead of continuing in office Shri M. C. Chagla became the new Minister of Education in 1963 and found that the Ministry of Education had enormous difficulties created by itself. To quote his words:[3]

"When I joined the Ministry, I realised that I had to clean the Augean stables, and streamline the working of the Ministry. One of the first things I did was to ask my personal secretary, Malhan, a very competent officer, who is now with UNESCO, to call for the records of all the Committees that had been appointed and find out when they were appointed, what progress they had made, whether any reports had been submitted, and what action had been taken. When I saw the information the secretary had collected, I was astounded. Some committees had hardly met, and there was no progress; others continued to meet without doing any appreciable work. In some cases where a committee had submitted a report, another committee had been appointed to consider the report submitted by the earlier committee. A committee is very useful in advising a Minister before he takes any policy decision; but the committee must be small, effective and quick in its work. In our country, however, more often than not a committee is a substitute for action, or for putting off decision on a thorny or controversial issue. I found that these committees were costing a lot of money in daily allowances and travelling allowances. I, therefore, decided to wind up about 50 committees. My action was described as wholesale massacre, the knight of the long sword. The general public acclaimed what I had done, but the vested interests who lost the membership of the committees which gave them some status and also some income were sore at my decision."

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[3] Chagla, M. C., *Roses in December, An Autobiography*, Bharatiya Vidya Bhavan, Bombay, 1973, p. 357.

Thus about 50 committees which according to the Minister were superfluous in the Ministry were abolished in 1963-64 and along with them the standing committees of the CABE. However, the first flush in which the Minister wanted to serve the cause of education was soon to get itself encumbered with many problems. These were perhaps summed up with precision and understanding by the *Shankar's Weekly* 'The Man of the Week' of November 24, 1963 which is factual and hence quotable as the same position reportedly persists in the Ministry even today. It stated:

"A hundred thoughtless experiments had converted the educational pattern to a near lunatic scramble, each State going its own way with no coordination between education at one level and another. It is no easy jungle that Chagla has to clear. There are language problems, ideological irrelevancies, fads, crankism playing mischief that constitutes the undergrowth. Would-be educationists have pet cures and panaceas. Quacks with political pull continue to monkey with schools. Nepotism is rampant, coaching exiguous and what is known as college politics, pervasive in our Universities. It is not that these facts have not been known to policy makers at the top, but time and again they have had to connive at or compromise because of political necessities. Mr. Chagla, fortunately, does not have to bother about this aspect for he is not a narrow politician out to either garner personal power or dispense patronage."[4]

To quote Shri Chagla again to describe the difficulties of the Central Minister:

"The difficulties that confronted me when I became Education Minister were formidable in their magnitude as well as complexity. The most serious of these arose from the fact that education was a State subject, and except with regard to coordination, research or the maintenance of standards in higher education, the subject lay entirely within the purview of the States. The Centre also had some responsibility for technical and scientific education. There were moreover the Central Universities, which were under the control of the Union Government. But whether it was primary education or secondary education or University education, the States, if they were so inclined, could do what they liked without the Centre having any voice in the legislation that they passed or in the administration of the system. I was anxious that education should have a national perspective and educational policies should have uniformity. That was the only way, in my opinion, to restrain and restrict purely regional and linguistic tendencies. But without the cooperation of the States it was impossible to achieve an all-India outlook. I think our Founding Fathers committed a great mistake in making education a State subject. It should at least have been placed in the Concurrent List,[5] so that, if necessary, the Centre could effectively intervene in the national interest."[5a]

It is interesting to see how the four C.A.B. committees in 1962 were constituted. The idea was to make a thorough examination of the existing educational problems and the assessment of the progress of various development schemes and therefore the Chairman of the Central Advisory Board of Education, i.e., the Minister of Education at the Centre constituted four standing committees of the Board. The terms of reference were as follows:[6] "(a) Assessment of the present position of education in the particular sector in all its aspects. (b) Evaluation and assessment of the extent to which the previous recommendations have been implemented and the problems arising therefrom. (c) Formulation of the aims and objects of education in the sector in relation to changing conditions and needs. (d) Formulating the plans for future development and indicating priorities for them. (e) Estimating the cost of the programmes it may suggest." Such terms of reference, to any reader today, would appear vague and general applicable to any inquiry committee at any time.

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[4] Also quoted in Chagla, M. C., ibid., pp. 344-5.

[5] The Constitutional Amendment (1976) effects this change.

[5a] Ibid., pp. 342-3.

It was also suggested that the standing committees may constitute sub-committees for special studies and enquiries and include persons who may not be members of the standing committee but were members of the CABE and they may also coopt other persons. The organizational set-up also indicated that there will be a steering committee to coordinate the work of the four standing committees under the chairmanship of the Education Minister of which the chairmen of the four committees, the Chairman of the UGC, the Secretary of the CABE and the Deputy Minister of Education were to be members.

The state governments watched this effort with interest, and curiosity but without much enthusiasm, and they promised all necessary cooperation for answering the questionnaires issued by the committees, arrangements of their tour programmes and supply of necessary information. Some facts were collected and many visits were arranged by the four committees, i.e., the committee on primary education consisted of 11 members, secondary education committee of 13 members, university education committee of 12 members and committee on social education, 9 members. These were later modified.

The committees were abolished by a letter to all members from the Ministry of Education, D.O. No. F.3-1/64-SE.1 dated 20-3-1964, after Shri Chagla had taken over as Minister of Education, which stated as follows: "The Steering Committee which met on 20-1-1964 reviewed the work done by the standing committee so far and also considered their future programme. The Steering Committee appreciated the extremely useful work done by the standing committees which had enabled the Ministry to prepare a tentative outline of the Fourth Five Year Plan.

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[6] No. F1-10/62-SE1, dated 2-6-1962, Government of India, Ministry of Education.

"With regard to the future programme of the committees the Steering Committee was of the view that as a central planning group had since been appointed, there would not be much point in continuing the work of the standing committees of the Central Advisory Board of Education, as that would merely duplicate the work assigned to the central planning group (a fact which was known earlier). It was therefore decided that the special task assigned to all standing committees under the Education Ministry memorandum No. F.1-10/62-SE.1 dated 2-6-1962 should now be concluded."

However, in spite of the reasons mentioned above for abolishing the abortive effort, the Education Commission was appointed within three months by a Resolution of the Government dated 14th July 1964[7] for almost the same purpose for which the CABE committees had worked. Incidentally the EC had 17 members, 20 foreign consultants, 12 task forces, with 20 sub-groups and seven working groups.

Comments on Report of the Education Commission

We have three significant comments out of a large number that were published on the report of the Education Commission. One is from Shri Samuel Mathai,[8] former Secretary of the UGC and former Vice-Chancellor of Kerala University, who says, "the Education Commission produced a report that is full of valuable information and useful statistics and contains some sound proposals for the improvement and modernisation of education in India. But it is not certain that the Commission was able to achieve the kind of objectivity that was necessary to take total view of the educational scene and provide a profound criticism of it. There has been a feeling in some quarters that the report has not been able to deal with the 'crucial problem' of 'the unwillingness of the academics to change, innovate or provide leadership'[9] that 'we need to go beyond the obvious and analyse in depth the economic, social and political factors that inhibit or promote the capacity of a society to modify the dysfunctional patterns and institutions';[10] that 'there is a cart-before-the-horse aspect to the Commission's view of how education fits into the larger process of social change'."[11]

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[7] Reproduced in REC, Appendix II, p. 591.

[8] See Mathai, Samuel, 'The University Grants Commission' in *The Higher Learning in India*, Ed. Amrik Singh and Philip G. Altbach, Vikas, New Delhi, 1974, p. 35.

He further says, "to some extent, the Commission's inability to make a radical break-through and come to grips with the heart of the problem of Indian inertia is related to the fact that it was heavily under the influence of the UGC and the Education Ministry through its chairman, secretary and other persons, who helped in gathering material and information for the report."[12]

Another comment is from Warren F. Ilchman who wrote on 'Educated Unemployment in India' in Asian Survey No. 9 (October 1969), pp. 781-795 and whose article has been reproduced in the *Higher Learning in India*, 1974.[13] "As is clear from other pieces in this commentary", he writes, "the man-power aspect was too little in evidence in the report, both in the analysis and in the recommendations. The supplementary minute by Gopalaswami was too abstract and too late to be of consequence. The results of the London School of Economics—Indian Statistical Institute projections, given the assumptions made about economic growth, were positively misleading. Even so, the contradictory objectives of any endeavour like an educational assessment are bound to result in inconsistent recommendations. Excellence and social justice are difficult to reconcile as goals; economic productivity and national integration often lead to opposite direction as criteria for reform. From these dilemmas the Education Commission impaled itself; ensuring jobs for all graduates, controlling the numbers in universities to ensure excellence, expanding the opportunities for higher education for backward communities, etc. It is not surprising then, that what began as commentary to celebrate this report may well serve as its obituary."

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[9] Quoted from *Asian Survey*, Vol. 9, No. 10, October 1969, p. 741.

[10] Ibid., p. 752.

[11] Ibid., p. 760.

[12] Mathai, Samuel, in *The Higher Learning in India*, Ed. Amrik Singh and Philip G. Altbach, Vikas, New Delhi, 1974, p. 35.

[13] Op. cit., p. 136.

The third significant comment is from Sir John Sargent, former Educational Adviser to the Government of India and later Secretary to the Government of India in the Ministry of Education from 1938 to 1948, who had established his reputation as a planner and educational thinker by virtue of the well-known Sargent Report of 1944. It is an interesting analysis of the Indian problem in his *Society, Schools and Progress in India* (1968) in the 'Commonwealth and International Library Series of the Education and Educational Research Division'.[14] Sargent, however, has been judging in this book the progress and activities in India in relation to the developments that should have taken place as a result of the CABE Report, 1944 (Sargent Report). The analysis of political and social conditions of India has been well given but the standard of judgement has been the Sargent Report and what should have happened in 40 years if the recommendations of 1944 had been implemented in their spirit and flexibility.

The criticism of the REC, however, is on a different basis. Sargent points out that the Education Commission's Report is an interesting document but in his polite and gracious manner he has analysed it and indicated that the report does not come up to the expectation of an action programme for India. He points out a number of difficulties and contradictions in the report. For example, he says in regard to planning and organization, that on the one hand the Commission affirms its conviction that resources should be concentrated on a few crucial problems and on the other it gives a formidable list on which the resources have to be spent. He says, "although most of the items have already been dealt with, it is worth repeating here, if only because it makes one wonder whether the EC (Education

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[14] Sargent, Sir John. *Society, Schools and Progress in India*, Pergamon Press, London, 1968.

Commission) ever worked out in detail how far the resources in money and personnel likely to be available during the next 20 years would make it possible to deal comprehensively with these 'few crucial problems'. Here they are: improvement of the quality of teachers, development of agricultural education, provision of good and effective primary education for all children, liquidation of illiteracy, vocationalization of secondary education, establishment of major universities, expansion and improvement of post-graduate education, increase in the number of scholarships and the development of about 10 per cent of the institutions at each stage to optimum levels of quality. The main issue in many of these cases is not to decide what should be done or how it should be done, because the EC is often only elaborating what former commissions have proposed, but to find the personnel and money with which to do it. Since the number of people with the ability and experience to implement large schemes is admittedly very inadequate, it is rather surprising to find the EC frequently recommending the setting up of special boards, committees and institutes to deal with various aspects of education, to which the experts in question will have to devote a good deal of their time. On the administrative side, the State directorates of education are to have State institutes of education as their academic wings, corresponding to the NCERT at the Centre. In addition, there should be State evaluation organizations and State boards of school education. Moreover, since various branches of education at the State level are administered by a number of departments and it is not considered feasible at present to bring them all under the Department of Education, a coordinating agency, to be called the Council of Education, should be created in each State. This should deal with all education below the university stage. There would seem to be a real risk here of important projects being strangled at birth by red tape."[15]

Sargent raises some fundamental points about the report. He says, "it may well seem ungracious to try to pick holes in the Report to which so much time and thought have obviously been given by so many distinguished educationists, but anyone who had read it with care and high expectancy can hardly fail to ask the question, 'To whom is it addressed?' "[16] If it is meant for the Ministry of Education, Members of Parliament and legislatures in the states then perhaps such a lengthy report was not justified. Besides the pedagogical proposals do not concern these people and they could be settled by the academics themselves.

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[15] Ibid., pp. 192-93.

He further points out that if it was meant for common consumption, then the jargon and platitudes should have been avoided, and the arrangement of the report could have been slightly better for clarity. In Chapter IX teaching methods, text-books, class sizes, school buildings, school health services, guidance, search for talent, education of the backward class and methods of evaluation, "all jostle one another". "Moreover, the Education Commission lays much stress on flexibility to meet the requirements of a changing world, and since the earliest date at which it expects most of its more important proposals to become operative is 1986, there is the risk that too precise directions may, by then, be inapplicable. There may well be revolutionary changes before that time in the educational and social complex of the Indian community.' "[17]

Sargent further suggests that instead of pace-setting institutions proposed by the Commission, they could have thought of developing an area like they do for agricultural development. "Moreover, the development of an area, if regarded as prototype of future national system, should obviate or at any rate reduce the need for preferential treatment of students and teachers in 'quality' schools or 'major' universities or any of the other model institutions which the Commission has in mind. These run the risk of creating a new caste system within the education field."[18]

Further Comments[19]

With these comments in mind we could say that any report whose main recommendations cannot be implemented in a reasonable period of 5 to 10 years obtains only a reference value. This has been the fate of the Sadler Commission's Report, the Sargent Report, the University Education Commission's Report and the Secondary Education Commission's Report. This is, firstly, because state governments would always find practical difficulties in providing the necessary financial means and, secondly, they tend to question the need for changes because education nearly always has conservative thinkers. Thirdly, bureaucracy which is in charge of implementing the recommendations are often indifferent if not obstructive to new suggestions.

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[16] Ibid., p. 194.

[17] Ibid., p. 195.

[18] Ibid., p. 196.

[19] Among other comments, the critical analysis by Prof. A. R. Kamat in his article, 'Higher Education: Myths Old and New' may be mentioned in *The Educational Situation*, Peoples Publishing House, New Delhi, 1973.

In fairness to the Education Commission it must be said that both Indian and foreign criticism is not completely justified in relation to the struggle of the Commission to deal with the varied problems. For no other Commission had done such a tremendous job in the shortest time of two years. It is possible that they should have taken more time and made it shorter even if it had cost more money.[20] The total expenditure incurred on the Education Commission over the two years of about Rs. 15 lakhs[21] is really not unreasonable for the labours put in by the Commission. The main contribution of the report is not so much its recommendations but collection of data and their analysis. It is felt that the methodology implied here should have been used by the Ministry of Education in reviving the Central Bureau of Education for continuous analysis and research and updating the information and disseminating it to the public and the universities for further research and analysis as a standing administrative procedure.

The chapters regarding school education and higher education in the Report may appear to be far too detailed, and sometimes unrealistic and uncritical and therefore controversial, but a most suggestive and constructive chapter is Chapter XVI — "Science

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[20] This has been pointed out by the Chairman of the Commission in his forwarding letter to the Minister dated 29th June 1966 at the beginning of the Report.

[21] *ECR*, App., p. 612. This is exclusive of the foreign aid for experts and for the foreign tours of some members and officers.

Education and Research". It has been appreciated by many and it was reproduced in an abridged form in *Minerva* VI, Autumn 1967, pp. 48-80. The other significant portion of the Report is the minute of supplementation by Shri R. A. Gopalaswami which is statistical, brief and scholarly.

The main difficulty of the Education Commission is that more than 90 per cent of the Report supports uncritically the existing machinery of administration of education particularly at the centre and its satellites in the states. For example, it has not questioned the need for central universities nor has it considered how higher education under item 66 of the VII schedule, Central List, of the Constitution, could really assert more powers to establish uniformity of development and better coordination. It has not questioned why central universities should have proportionately large grants of crores of rupees and state universities should languish for want of funds. It has not examined why a heavy expenditure[22] is to be incurred on the Education Ministry, the NCERT and other institutions created by the Centre. Its implied support of the establishment is unanalytical and uncritical and poor in objectivity. Its main view is that whether it is the Central Ministry of Education or the UGC or the NCERT or the State Educational Services, all of them should be further strengthened without questioning why and how.[23] On the other hand, they say there should be a strict economy and expenditure particularly in administrative matters and a rupee should go very far in giving the results.[24] It has not examined how greater work in the Ministry of Education could be achieved through the machinery of the Central Advisory Board and the Central Bureau of Education. In other words, there is a defence of the establishment and bureaucracy regarding educational finance and educational administration as well as educational planning. New lines of economy, efficiency and organization have not been thought of. It errs on the side of being defensive of government machinery and institutions at the Centre without justifying either their existence or the lavish expenditure involved.

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[22] *Report of the Ministry of Education and Social Welfare* 1972-73 Government of India Press, 1973, p. 1.

[23] *REC*, pp. 453, 455, 343, 457.

[24] *REC*, p. 486.

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After the Report

The Ministry of Education had many frustrating efforts to their credit earlier but after the publication of the Education Commission's Report these were repeated. The obvious steps were to call meetings of the Education Secretaries, Directors of Education, of the Central Advisory Board of Education which includes the Education Ministers of states and of Vice-Chancellors of all the universities and forge a national policy and a programme of action. Such conferences were not unknown before and it will be cynical to say that the conferences are ineffective. Ultimately the state governments are responsible for education in the states and everything they have to say has a significance for the annual plan and budgets. It is always impossible to convince the state Finance Secretary to give priority to educational programmes when there are important areas of economic activities which claim his prior attention. In almost every state the Education Secretary hears the argument from the Finance Secretary that whatever the central government or the Education Commission might have to say, the state government has limited resources and there were far too many other claims for the state government to manage; maintenance of the educational system at the level at which they found it was itself a heavy financial burden for the government.

The Government of India and the state governments have, however, devised an administrative technique, evolved out of the approach to the five-year plans and the annual budgets of the state governments and the central government, and of Plan and Non-plan budgetary provision through annual plans. The total resources are estimated and the first priority on these is for non-plan items which are accepted as committed expenditure. The balance is distributed over development or plan expenditure Priorities like food, agriculture, industries, communication and other economic sectors compete with Education and the Finance Departments always argue that providing more education is of little avail when there is rising unemployment of the educated.

Even if this was the position right from the beginning of the Second Plan (1956-61), the Ministry of Education thought that after the publication of the Report of the Education Commission action had to be taken on all their recommendations quickly and programmes should be reflected in the central and states plans. It was felt that at least the recommendations that related to the central sector should be implemented immediately and almost a naive action was reportedly taken of getting these recommendations separately approved by the Minister and sent to central organizations like the UGC, the NCERT and the Ministry of Education itself for further action. No action was likely to flow from such an administrative step as necessary financial provisions had to be made by the sector concerned and they could only be made in the new budget by "new items statements" which had always a rough weather for want of finance. Of course, incapacity of the states to provide fully for education is a chronic condition.

In the beginning, the Education Ministry assumed that the REC was well received by the public, the state governments and the universities as a delusive self-defence. They said, for example, addressing the Education Secretaries in the conference on 23rd and 24th January 1967, "as you are aware, the report of the Commission has been very widely noticed and discussed and barring a few recommendations that have become rather controversial, it has, on the whole, received wide support in all quarters. In fact, it will be no exaggeration to say that no other report has received so wide an attention and aroused such great hope as this. The people are now asking for a quick and vigorous implementation of its recommendations."[25]

The criticisms mentioned earlier from experts, both Indian and foreign, available about this time were generally ignored. For there was also a good deal of hilarity among the educational bureaucracy that the recommendations should be implemented for that opened out greater chances and prospects of promotion for them. But delusions do not last long and this has been the history of all good ideas in education because the Education Commission felt that if about 6 per cent of the GNP was provided for education there would be an educational revolution and economic progress in the country. Secondly, everything administratively had to be strengthened.[26] Such thoughts assumed an economically affluent country.

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[25] Mimeographed Inaugural Address by the Education Secretary, Government of India, January 1967, p. 8.

An attempt to forge a national policy of education through a parliamentary committee was the next development in 1967. There have been central resolutions like those of science policy and industrial policy of the Government of India before in subjects which have largely a central responsibility. But education is a sector which primarily is the concern of the state governments. While it can hardly be said that the Central Ministry of Education was unaware of its function as a coordinating agency and as an agency that could collect and disseminate information through the Bureau of Education and work out all-India policies through the CABE, it wanted a direct action programme with parliamentary support. The policy statement supported by Parliament had to go before the Education Ministers' conference or the CABE and the Vice-Chancellors' conference. This was tantamount to reversing the normal administrative conventions. A broad policy statement full of platitudes without financial implications does not carry much conviction with the public in the mood they found themselves at the end of the third plan.

National Policy: CABE Could Frame It

As a matter of fact, administratively it was not necessary for the Education Ministry to go to Parliament for the national policy statement on education. A policy statement could be prepared by the CABE with the involvement of all state governments as all state Ministers of Education are members of the CABE. But from 1950 to 1973 the CABE was gradually weakened; first by not consulting the Board when the Education Commission was appointed; second by abolishing the standing committees; third by creating no effective coordination between the CABE and the new powerful bodies like the UGC.

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[26] REC, pp. 451 *et seq.*

the All-India Council of Technical Education, the All-India Council of Medical Education, the Bar Council of India, the Indian Council of Agricultural Research, the Inter-University Board of India (IUB), the National Council for Training in Vocational Trades (Ministry of Labour & Employment) and a number of other councils created in other Ministries and in the Education Ministry itself;[27] fourth by making the Central Bureau of Education defunct and fifth by not changing the constitution of CABE in consultation with the state governments to suit changing times.

CABE

On the recommendation of the Sadler Commission, the Central Advisory Board of Education was established in 1921. The Sadler Commission had stated: "the Government of India can perform an invaluable function by defining general aims of the educational policy, by giving advice and assistance to the local governments and to the universities, by acting as an impartial arbiter in cases of disputes, by protecting disregarded interest, by supplying organized information as to the development of educational ideas in the various provinces, and also elsewhere than in India, by helping to obtain the services of scholars from other countries, and by co-ordinating the work of various universities and by guarding against needless duplication and overlapping in the provinces of the more costly forms of education."[28] The Government of India conveyed its decision of constituting such a board in a letter to the state governments in August 1920 which explained that such a body possessed a purely advisory capacity. It clearly stated, "nor will it in any sense interfere with the control of education which will be a provincial transferred subject". The function of the Board, therefore, was restricted to the giving of advice whenever it was asked for. From 1920 to 1923 they held about seven meetings but in 1923 the Inchcape Committee which retrenched the superfluous staff and departments in the

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[27] These include, e.g. the All-India Council of Secondary Education of Basic Education, of Women's Education, Adult Education, etc., which were later abolished.

[28] *Calcutta University Commission Report*, 1919, Chapter 28, para 27.

Government of India as an economy measure recommended the abolition of the Central Board. Their recommendation is quite significant from the point of view of the function of the Central Government in the field of education and the overenthusiasm of the Central Government in dealing with the subject. They said: "in view of the essential modification of the position of the Central Government *vis-a-vis* the provinces under the Reforms Scheme in respect of education and medical administration, which are now transferred subjects over which the Government of India exercised a very limited control, we do not consider that there is any justification for the retention of the Educational Commissioner, the Bureau of Education or the Central Board, costing about Rs. 1,00,000 or, indeed, for the views of department as a separate entity."

The abolition of the Central Advisory Board of Education was indeed a very unimaginative act. It was created after the constitutional reforms for the purpose of co-ordinated activities of education in all the states. Everyone felt that there should be a central board for co-ordination advising the central and state governments regarding educational programmes and activities in India as a whole. As an instrument for national integration, a clearing house for various educational problems and as an all-India forum for discussion of educational development and planning it was indeed a useful administrative device and the Hartog Committee of 1929 strongly recommended the revival of the Board as early as possible, and the Indian Statutory Commission (Simon Commission) supported this view. When financial implications were worked out they came to mean about Rs. 58,000 per annum which appeared to be such a small amount in relation to the central budget of education. From 1923 to 1935, therefore, the Department of Education, Health and Lands at the Centre was pressing for the establishment of the Board and the Bureau of Education and ultimately it was revived in 1935. The state governments themselves during this period were wondering whether there was need for such a Board during the days of financial depression and it took nearly five years to obtain general agreement of the states.

Unless the Central Minister and the Secretary are keenly aware of the important functions of the central research and advisory functions involved in the Bureau of Education and the Central Advisory Board they could not be effective instruments of educational guidance. The tendency of an administrator is to expand his empire and to find satisfaction in power and control; activities of collection and dissemination of information do not directly and quickly contribute to such power. But no government machinery could be effective without co-ordinated sources of information. In 1915 when the central government under the Educational Commissioner with the Government of India established the Bureau of Education, "its duties were to collect and collate educational information in India and abroad and to arrange for the publication of occasional and annual reports and quinquennial review of the progress of education in India."[29] The importance of the CABE and its Standing Committees as well as the Bureau of Education was being felt only in 1974.[30] The CABE needs to be further streangthened by requesting each state government to nominate a non-official expert on the body and reducing the central government's power of nominating 20 educationists as at present to not more than four. There could be other modifications too; a few more Vice-Chancellors or specialists should find a place on the Board.

From 1935 the revived Central Bureau of Education along with its library (later incorporated in the Central Secretariat Library) and the Central Advisory Board of Education worked on a well set out plan and brought out the *Sargent Report of* 1944, the first planning document in Indian education, analytical, brief, pragmatic and perspective. The Bureau collected and disseminated information on educational development in the country and the Board became a clearing house of educational ideas and programmes and through its standing committees and annual conferences made policy decisions for consideration of the state and central governments. The resolutions of the Central Advisory

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[29] Letter No. 48, Education, dated 8-1-1931 to state governments--Proceedings of Department of Education, Health and Lands, January 1931, Nos. 79 to 82.

[30] See proceedings of the CABE, XXXVII Session, 4th-5th November 1974.

Board were always sent to the state governments for their comments and every state government was competent to make modifications in relation to the special circumstances in which the state government was placed. Such detailed changes were again collected as information pieces by the Bureau and statements and studies were prepared which were cleared by the CABE at their next meeting.

After 1947, however, we were impatient to implement new educational programmes and after 1950 article 45 of the Constitution gave certain powers to the Central Ministry of Education because it stated, "the state shall endeavour to provide within a period of 10 years from the commencement of this constitution for free and compulsory education for all children until they complete the age of 14 years." The word 'state' was interpreted at the national level, and included the central and state governments and throughout the four plans attempts have been made to make universal education for all children upto the age of 14 years available compulsorily. Endeavour was made for 10 years and it is still continuing but the goal could not be attained by an economically weak country.

The officers particularly at the centre thought that the directive of the constitution was feasible if financial inputs were to be in larger figures. The central financial resources for the purpose were only for development and not for maintenance after the plan period when it became the complete responsibility of the state governments. The argument of the central government was that commitments arising out of development should be the burden of the state governments because of the large sums of money transferred to the state government as a result of the award of the Finance Commission at the end of each five year period. However, the Finance Commission does not earmark any amount for educational commitments and the state governments always found it difficult to maintain the pace of educational development. They argued that according to the constitutional directive they were making an "endeavour" and most of them were successful in that endeavour because there was a tremendous rise in the student population in classes 1 to 5 in nearly all states.[31] But universal elementary education upto the age of 14 was still remote and seems to be unattainable for many more years to come[32] unless the population increase is controlled and, secondly, economic affluence is assured.

Actually after 1960 the constitutional directive has become a dead letter because the constitution-makers had provided a time-limit of 10 years from 1950 for the programme and also put a saving clause to the effect that endeavour should be made by the state to achieve the objective. The endeavour is being made but education cannot have priority over food, shelter, communication and work for employment of all adults. The argument that education will increase productivity of the people needed a good deal of analysis and thought in the present economic condition when unemployment of the educated is a glaring fact and when there have been no actual economic results of such an educational development.

It may be necessary now to consider how the resources could be better employed for achieving objectives through programmes of Adult Education which may be cheaper and well motivated. The concept of compulsory free elementary education was evolved as a Christian thought in the liberal school of British thinkers in the year 1870 when England was the most prosperous and richest country of the world. The nation must have abundant resources, for a programme of this nature.

International Approach to Higher Education

The interest in the problems of higher education in the world to-day is evident not only in the studies of the Carnegie Education Commission, California, U.S.A., of the International Council for Educational Development, New York, U.S.A., of the International Institute for Educational Planning, UNESCO, Paris, in the publications and of the Journal of American Association of Community & Junior Colleges but also in some of the journals of higher education including the *Times Higher Education Supplement*, London, and the two important journals of higher education, *Minerva* and the *Universities Quarterly*, London.

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[31] See *Reports of the Planning Commission*—II, III, IV and Draft V Plans, Chapters on Education.

[32] Ibid.

The second international conference on higher education held at the University of Lancaster, England, in September 1972 analysed some of the university problems under 4 heads: (1) the structure of higher education, (2) cost/benefit analysis, (3) continuing education, (4) the student in mass higher education.

These problems generally referred to the world situation and prominently to the developed countries but they apply to developing countries as well and the analysis of these problems applies to the Indian situation in many ways in spite of the fact that our economy has been moving at a snail's pace. There appears to be no proper relationship between the economic growth represented by the GNP and the rate of growth in higher education. If the latter is about 11 per cent per annum the rate of growth of GNP is hardly 2 1/2 to 3 per cent. This creates problems of a different type. Compared with a developed country like the U.S.A. where about 40 to 50 per cent of the students of the age-group 18 to 22 are enjoying the facilities of higher education in 3 types of institutions, viz., (1) community junior colleges, (2) 4 year degree colleges and graduate colleges and (3) universities with sections for under-graduates, graduate and research work, we have a long way to go as the percentage of such students of the relevant age-group in India was estimated at only 4.4[33] in 1973-74.

This leads us to consider the alternatives for an economically backward country. How could developments in Education be integrated into national economic plans for a balanced national growth? What is the role of Higher Education in the growth of a nation?

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[33] *Draft Fifth Five Year Plan*, 1974-79, Part II, Planning Commission, New Delhi, p. 198, Table 7. The figure of 4 per cent we have mentioned in other places is an approximation.

CHAPTER III

PLANNING EDUCATION

New Concept

The ideas of open university and junior/community colleges will affect planning procedures. Even the plans of new campuses and physical facilities will need modification and the academic programmes that meet the changing demands and interests of students will undergo changes. The traditional courses will be replaced by programmes developed in response to the changing needs and therefore planning cannot be conducted on the basis of projected trends but will shift to planning by objectives. Throughout the four plans educational planning has meant provision of resources against the trends of numbers at different levels of education. Planning on the basis of goals and objectives that have been deliberately chosen should be the desirable direction of development.

This is not an easy task. Because set notions of planning need to be changed and guided by modernity of outlook and knowledge of the social trends to be reflected in educational planning. Recently Palola, Lehmann and Blischke[1] have studied the problem of higher education by design in which they have generally pointed out how teachers are unwilling to become actively engaged in planning in relation to goals and aims of higher education. Similarly, university administrators very often are unappreciative of new programmes and they may not be familiar with the new skills and techniques developed in the last decade. The old jargon of planning therefore needs to be influenced and modified by concepts of systems analysis, simulation techniques, computer technology, operation research and systems engineering. Organization in a more sophisticated manner has to be introduced to evolve certain models and be free from the old idiom which we find in our documents. We cannot then commit ourselves to false promises and the difficulties we are facing to-day will not arise in planning, i.e., difficulties of exceeding targets of numbers of students and shortfalls in utilising the financial provisions.

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[1] Palola, Ernest G., Lehmann, T. and Blischke, W. R., *Higher Education by Design: The Sociology of Planning*, Berkeley: Centre for Research and Development in Higher Education, University of California, 1970.

Planning models have to be created with imagination and perspective which should provide clear understanding of the limitations inherent in the present approaches. In the new approach planning is viewed as a logical device to develop academic programme of a new outlook. Cameron Fincher,[2] Director of the Institute of Higher Education, University of Georgia, in his article "Planning Models and Paradigms in Higher Education", says "planning techniques in higher education consist of a great variety of problem solving approaches and procedures. The diversity of these techniques is appreciable. But each can be identified within a framework that should be acceptable to those who are responsible for policies and decisions. Despite the fact that many planning techniques are perceived as highly abstract or mathematically complex, they are readily seen to have a broad common usage. It is crucial, however, that planning be viewed in terms of objectives that are to be accomplished."

What is said above is already being done in industry and business where management techniques are being employed. The main idea is to make systematic efforts to develop planning models including concepts of efficiency and effectiveness. Here efficiency has been defined as the quotient of output divided by input and effectiveness is the result of objectives and outcomes in relation to the strategies employed.

Implementation of REC's Recommendation: Difficulties in the Plan

Educational planning is not such a frustrating effort if it is balanced with economic needs of more production and finding more work for the unemployed. However, the disappointment of the Ministry of Education in not being able to provide in the Fourth Plan adequate resources for implementation of the recommendations of the Education Commission was first reflected in the Education Secretaries' conference of January 1967. At that time the Fourth Plan was tentatively framed and nobody could visualize that it might take a holiday for three years. Still the state departments of education goaded by the Ministry of Education were busy asking for more funds for education. The Third Plan was over in March 1966 and the work on the Fourth Plan was started earlier in 1963-64 with 43 working groups and 75 sub-groups set up by the Planning Commission for all sectors. There was an important working group for education with sub-groups and the intention was to provide for various ideas of educational development; but the recommendations of the Education Commission were available only in 1966. There was no interim report of the Education Commission to facilitate provision of required funds for the first year of the plan.[3] There were projections, schemes and programmes available prepared in the Planning Commission for a perspective plan for the period 1961-76 which became the main framework for the Fourth Plan. The mid-plan appraisal of the Third Plan was available in 1963 and all this data enabled the working groups to prepare a plan for different sectors including education.

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[2] Fincher, Cameron, 'Planning Models and Paradigms in Higher Education', in *The Journal of Higher Education*, Vol. XLIII, No. 9, December 1972, Ohio State University Press, 1972.

However, in January 1967 when deliberations on educational planning were held, they had in mind the budget proposals for the year 1968-69 in which they thought the Education Commission's recommendations could be reflected. The tentative Fourth Plan could not start in 1967. It had to be revised in 1969 and another plan prepared for the period 1969-74. But the earlier plan had indicated a total outlay of Rs. 1049 crores on education excluding agricultural and medical education. Actually, however, for the two years the outlay was not to exceed Rs. 200 crores.[4] It was then realised that any appreciable programme of implementing the recommendations of the Education Commission would begin only in 1968-69 or possibly with the revised estimates for 1967-68. The Education Commission had estimated an outlay of Rs. 1600 to Rs. 1800 crores for the Fourth Plan period if a beginning was to be made to give effect to the recommendations of the Education Commission. Resources of this order, however, were never in sight. In the beginning the Fourth Plan for education tentatively provided Rs. 1300 crores for development programmes and the amount for meeting teachers' salaries was to be treated as non-plan expenditure outside the plan. As revisions of the Fourth Plan continued the education provision was reduced from Rs. 1300 to Rs. 1260 crores and then to Rs. 1210 crores and at one time before the plan was given up it stood at Rs. 1049 crores. Actually, however, when the plan was prepared for the years 1969-74, the provision was Rs. 822.66 crores in addition to an average non-plan annual expenditure of Rs. 550 crores which comes to Rs. 2750 crores for a five-year period. Of the Plan outlay Rs. 551.66 crores were in the state sector, Rs. 32.40 crores in the centrally sponsored sector and Rs. 238.60 crores in the central sector. It is historically interesting that while in the earlier plan of Rs. 1210, university education had a provision of Rs. 175 crores, in the plan of Rs. 822.66 crores, university education was raised to Rs. 183.52 crores. The earlier draft outline had more or less dealt with the Education Commission in a cursory way in the following terms. "The Education Commission was appointed by the Government of India in July 1964 to advise on the national pattern of education and on the general principles and policies for the development of education at all stages and in all aspects. The Commission has recently submitted its report but so far only a summary has been made available to the public. A perusal of this shows that in many areas recommendations of the Commission are broadly in line with the thinking outlined in this chapter. When the full report becomes available it will be carefully considered and such modifications will be made in the programmes as may be considered necessary."[5] The Fourth Five-Year Plan document for 1969-74 had before them the recommendations of the Education Commission but there was no direct reference to them as reflected in the programmes except a statement that 'the recommendations of the Education Commission 1964-66 formed the basis of the national policy on education and provided the framework for formulation of the plan programmes. Some efforts have been made in the states and at the centre to enrich curricula and improve textbooks and teaching methods. Steps have been taken to provide educational and vocational guidance and development facilities for science education and post-graduate education and research." The Chapter on Education in the Planning Commission Report is apologetic, saying "the unfulfilled tasks are many".[6]

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[3] *Fourth Five Year Plan—A Draft Outline*, p. XI.

[4] Mimeographed Address of the Education Secretary, p. 3, Ministry of Education, January 1967.

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[5] *Fourth Five Year Plan—A Draft Outline*, 1966, p. 327.

A long-term objective of the educational policy was non-controversial and could form a platitudinous national policy of education. Secondly there were recommendations regarding non-plan programmes like improving remuneration and retirement benefits of teachers and provision of welfare services for them. Both these programmes, however, depended on the government providing financial resources and even if 80 per cent of the resources were provided by the central government for raising the salary of university and college teachers outside the plan on an 80:20 basis during the Fourth Plan, the 20 per cent of the amount required for the programme was not made available by many state governments for want of resources; and again, there was the fear of commitment in the later years when no central aid would be available, as provision by the Finance Commission would hardly cover the big commitments of the state governments. Even non-controversial recommendations were not easily accepted by the state governments; for each of the recommendations they feared would mean financial involvement later. Thirdly, recommendations relating to language policy, selective admissions, qualitative improvement, optimum standards, etc., were not new to the state governments and they could argue that they were already making an endeavour to implement such items but there were always social, political, administrative and financial difficulties. The fourth category of recommendations were about reorganization of the structure of education particularly implementation of the

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[6] *Fourth Five Year Plan*—1969-74, p. 352.

10 + 2 + 3 pattern of school and university education. These had been considered by the state governments and some of them had accepted the structural changes in principle but not in details as they found themselves in difficulties in regard to the financial implications and also social and academic acceptance. This category also included many suggestions like the introduction of work experience in general education, vocationalisation of secondary education, introduction of compulsory social service at the secondary and university stages, improvement of amenities and facilities available to teachers and students but they were set aside by the state governments because they implied a large investment of resources. The Ministry of Education pressed on the state governments that organizational ability and skill should be used for reducing the expenditure and for suggesting practical and realistic projects and programmes but the states did not respond to the pressure as they had to face concrete realities.

The Education Commission's Report had thus become a good reference book, summarising some concepts of educational development handed over to us right from the date of Wood's despatch of 1854. The statistics were useful for argument but have already become out of date because even in 1974 the picture of numbers has gone beyond the calculated projections; and financial provisions have been short of the needs of the state governments.

The attempts of the central Ministry to shape educational development have taken many forms. In a subject in which they cannot be administratively effective, they thought they could assume leadership in terms of the Education Commission's Report. In the second and third plans, when large-scale educational development programmes were formulated the Planning Commission had always consulted the Ministry of Education and also had created a panel of educationists to advise them in regard to the problems of education and the programmes that should be provided for in the plans. But for the fourth and fifth plans the leadership was taken by the Ministry of Education in trying to convince the Planning Commission that without addition of more resources educational development would not contribute to national benefit.

Planning: A Retrospective View

Educational planning cannot be isolated, it is so much linked up with economic sectors of planning. Educational planning is in a sense a part of a total plan of economic growth and the financial provision for it depends on priorities and availability of total funds.

The first plan in education from 1951 to 1956 was a co-ordinated attempt to provide funds for continuing old Schemes when techniques of planning had yet to be evolved and refined. It was later realised after the formulation of the second and third plans that projections of numbers attending schools and colleges were an exercise that was hardly adequate for the present situation. Upto the year 1956 the educational thinking was still governed by traditional and conservative methods. "In recent years there has been a great deal of re-examination of the pattern of education and on several issues the opinion of educationists has crystallized into fairly specific proposals for change as indicated in the recommendations of the University Education Commission, the Secondary Education Commission and a number of committees which have enquired into educational problems."[7] Nobody doubted the wisdom of such statements but they were repeated also in the third and successive plans. "Education is the most important single factor in achieving rapid economic development and technological progress and in creating a social order founded on the values of freedom, social justice, and equal opportunity."[8] In actual programming and provision of finance, however, and in implementing the programmes this idealistic approach is hardly concretized. By 1955 the numbers in the schools and colleges had increased manifold and there were shortages of important inputs like buildings, laboratories, qualified personnel, text-books and libraries—of nearly everything that an educational system needs, except students. However, the traditional way of planning continued through the working groups. When the Planning Commission appointed a panel of educationists to advise them on the programmes for the second and third plans,

[7] *Second Five Year Plan*, 1956-61, 1956, p. 500.

[8] *Third Five Year Plan*, 1961-66, 1961, p. 573.

the Education Ministry had not come out with a separate draft plan, because the convention was that the government spoke with only one voice and the Planning Commission should finally produce the plan in complete co-operation with all other organs of central and state governments dealing with education. However, for the fourth and fifth plans the methods seem to have changed and this is illustrated by the approach of the Ministry of Education to the fifth plan.

Planning Education: Illustrated

Education in the Fifth Five Year Plan 1974-79, of the Ministry of Education was a document prepared by the Ministry for the consideration of the Central Advisory Board of Education at their meeting on September 18, 19, 1972. It would appear that such a plan should have gone to the working group of the Planning Commission and the public, including the state ministers and the nominated members of the Central Advisory Board of Education, need not have been involved in bringing pressure on the Planning Commission to provide more funds which according to the experience of earlier plans had always proved futile and meaningless. The normal government machinery of internal discussions and agreements before the public is involved could have been utilised so that later the rousing of public enthusiasm and the resultant frustrations would not have occurred. But this was a renewed attempt to put across the recommendations of the Education Commission for "an integrated and comprehensive programme of educational development which will catalyse social transformation, promote economic growth and accelerate our progress towards socialism."[9] The idea was that the CABE should accept the draft which should then go to the Planning Commission and the government with their recommendations and that the year 1973-74 should be utilised for a "vigorous advance action" towards implementing the programme. Nobody could question that there was need for modernisation, for economic growth and for national integration. These slogans were already there throughout the first four plans and were reiterated by the Education Commission in 1966. But by that time people recognised the hollowness of all platitudinous statements and were prepared to face realities rather than live in self-created illusions.

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[9] *Education in the Fifth Five Year Plan*, 1974-79, Ministry of Education & Social Welfare, 1972, p. 1.

The state governments were hardly ready with their comments on the document. Controversial matters like establishing model comprehensive secondary schools in each district and model primary school in each community development block as pace-setting institutions and autonomous colleges were introduced in the draft. State governments do not have enough resources for providing even ordinary primary and secondary schools, how could they provide resources for a comprehensive pre-school programme outlined in the paper? Vocationalisation of education at the higher secondary stage was a fallacy which has been discussed later.[10] Adoption of uniform pattern of school and college classes, i.e., 10 + 2 + 3, in all states and union territories was acceptable to some states and was considered impracticable by others like U.P. and Kerala on different grounds. U.P. had already, since 1923, the 10 + 2 school system followed by two-year degree courses and they estimated that they would need nearly Rs. 30 crores more to establish a three-year degree course and they wanted the amount to be entirely provided by the central government which was impossible; for other states would demand similar amounts which were scarce. Kerala had already introduced a junior college system which according to the reports was successfully running and the intermediate two years affiliated to universities could not be transferred to the school system as recommended in the paper.

Needs of Specialization at Post-graduate and Not at the Under-graduate Level

There was no discussion in terms of the recommendations of the Robbins Committee on higher education in the U.K. that honours courses were not necessarily a desirable development in modern times at the under-graduate level. Dr. Martin Sherwood in his article in "New Scientist" 1-11-1973 on "Robbins plus 10" pointed out "the place for high specialization according to Robbins is graduate school and he regrets the present government's decision announced in its White Paper on Education to cut back on the percentage of post-graduate students in the university population." The argument was that post-graduate schools in the U.K. were not developed to anything like those in the American universities and these should be tried first. The Robbins Committee said: "We have received much evidence that is critical of present first degree courses and of specialised honours courses in particular. It has come from schools, from industry, from professional organizations and some from university teachers themselves. In a period of rapidly changing knowledge, there is undeniably a tendency to add new knowledge year by year to an already full curriculum. It is easier to add than to take away. It is difficult to reach an agreement as to where to impart less knowledge and where to concentrate more on principles .... The second criticism directed at first degree courses is that they are not suitable for many students who are now taking them. By this is meant two things: that courses which concentrate on a narrow front are intrinsically unsuitable for many students, who would benefit more from broader courses, and, second, that many students would be better prepared by broader courses for their future careers."[11] The general approach has been that high specialisation should be at the post-graduate level and not at the under-graduate level in the form of honours courses. To-day in the universities of U.P. and M.P. and also in some other universities honours courses have been given up and general courses have been provided for a broad understanding of importance of science and humanities in the cultural pattern of modernisation. In substance the argument is that at the under-graduate level there should be as little specialisation as possible and a broad spectrum of knowledge should be provided with flexibility of courses and choice of options and real specialization should be provided for at the mature age at the post-graduate level. But there has never been any debate about this important aspect of reorganisation of under-graduate and post-graduate courses in our universities even though the actual practice varies in different universities and the honours courses have not necessarily been successful in those where they have been introduced. Moreover, factual surveys of the position are not available.

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[10] See Chapter VII, *Structural Changes and Other Problems.*

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[11] Robbins, *op. cit.*, pp. 89-90.

Education in the Fifth Plan

It is perhaps of very little use to go into details of the proposed educational plan of Rs. 3200 crores for the Fifth Plan prepared by the Ministry of Education. The claim made in the document is however interesting to students of educational finance and of the economics of education. The document states that if this total allocation of Rs. 3200 crores is made available in the Fifth Five Year Plan, the annual expenditure will increase from Rs. 1250 crores or 3.2 per cent of the national income to Rs. 2250 crores or 4.5 per cent of national income. "If to this is added the expenditure on educational programmes incurred by other ministries, the total educational expenditure may come up to about 4.7 per cent of the national income. This will have to be in keeping with the decision to increase educational expenditure to 6 per cent of the national income by 1985-86."

In the first place to increase educational expenditure to 6 per cent of national income, a desirable objective of educational planning, is not supported by economic, sociological or political considerations. It has been pointed out that if the countries of the third world, that is, of South America, Africa, Asia, excluding Japan, were to come out of poverty, they have to embrace technology and economic development in such manner as to see that the gap between the rich countries and poor countries is reduced. We cannot compete with the nations of the first world in the matter of education and we have to employ methods by which there will be greater economies in expenditure and higher results. A new strategy has to be evolved which is not based on providing money for education comparable with that of the developed countries but an organized system which finds its own solution to problems has to be established.[12]

But the elaborate draft plan of the Ministry of Education had its shock when the approach document of the Planning Commission suggested a provision of Rs. 2250 crores for education. This was a hard reality and in the meeting of the standing committee of the CABE held on 13-6-1973 another bold attempt was made to recast the plan within an estimated cost of Rs. 2200. After expressing a feeling of disappointment at the reduced allocation,[13] it was stated that the reduction was actually far greater on account of the rise in the prices, increase in the scales of pay and allowances of the personnel which had already occurred and that which was likely to occur as a result of the recommendations of the Pay Commission.

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[12] See the Chapter, "Systems Analysis".

The Standing Committee of the CABE agreed to the provision of Rs. 2200 crores on account of the difficult financial conditions through which the country was passing. If such matters were discussed internally between the Ministry of Education and the Planning Commission without calling for public support to the needs of finances for education in the fifth plan the procedure would not have appeared so absurd in the eyes of the public.[14]

To provide 50 per cent of the total allocation for the elementary education to fulfil partially at least the constitutional directive under article 45, which is already a dead letter, does not indicate necessarily expert planning strategy or maturity of thought based on 20 years of planning experience. All the explanations and the recommendations offered are more or less repetitions of what was said in the earlier plans when similar reduced provisions were made. Such an approach is likely to create expectations which are foiled later.

But the Ministry of Education also stated in the document that they were hardly prepared with facts for any planning. Therefore administrative steps to collect information and revive the Bureau of Education were indicated. The Bureau which was established in the Central Department of Education in 1915, abolished in 1923 and revived in 1935, had done good work from

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[13] Actually it was the maximum that Planning Commission could think of and they reduced it further. They had never accepted the earlier figure, so they could not be accused of encouraging high hopes.

[14] Educationists and others through newspapers and conferences discussed such matters publicly not being well informed about the resources and their distribution.

1935 to 1950 in getting annual, statistical and quinquennial reports for the whole country. Publications still continue and there are annual reports of the state governments as well as the Central Ministry of Education. But there are no co-ordinated digests of information at the appropriate time. The suspension of the activities of the Bureau and weakening of the CABE through 1955 to 1973 were unfortunate steps resulting in lack of co-ordination and of information flow—which is the main function of the Central Ministry. This position was recognised by the Education Commission in 1964 and a lot of information had to be directly collected by them from the states. To convert this machinery into a regular and permanent Bureau of Education was never thought of till the meeting of the Standing Committee of the CABE to discuss the fifth plan of education. The people naturally get the impression that the whole structure of planning is based on incomplete facts and inaccurate data. This impression is evident in the following extract from the proceedings of the Standing Committee of CABE, June 1973. They say: "in all the earlier plans the essential academic inputs such as a revision of curriculum, adoption of new methods of teaching, examination reform, improvement of text-books, teacher education (both pre-service and in-service), encouragement to experimentation and innovation, use of modern education technology (including mass media), improved supervision and development of closer ties between the school and the community have generally received inadequate attention. In the fifth five year plan it is proposed that they should receive great emphasis and close attention. The funds needed for them would generally be limited and these are perhaps to be provided on a priority basis." For this purpose they thought of creating an implementing machinery in the UGC, strengthening the extension programmes of NCERT and developing a major programme for training of district education officers through the National Staff College for educational planners and administrators established recently. There were various other suggestions also in the document, like encouraging the All India Council of Teacher Education to take leadership in expanding and improving programmes of training; provision of school building development groups at the national and state level, strengthening the inspecting machinery of the state governments, developing modern education technology through collaboration with the Ministry of Information & Broadcasting, making teachers plan minded and generally encouraging research and development in education which they said was "extremely limited".

Any layman can ask the question as to why a machinery for the collection and analysis of detailed facts and research was not created during the last 25 years. Secondly, why basic data on education in different states had never been presented to scholars of education during the period when the tax payer was spending large amounts—crores of rupees—on maintaining the Ministry of Education at the Centre and departments of education in the states.

Financial Difficulties for the Plan

The story, however, does not end there. The Rs. 2200-crore plan was further reduced by the Planning Commission in their draft of December 1973 to Rs. 1726 crores out of a total outlay of Rs. 37250 crores, i.e., about 4.6 per cent against 5.1 per cent of the fourth plan when the amount was Rs. 853 crores out of a total provision of Rs. 16774 crores. The Planning Commission recognised that within the constraints of over-all resources, it was not possible to provide the amount promised in the approach document but more than that they found that the competing economic sectors were much higher priorities.

The Utopian programme of educational development for social transformation and promotion of economic growth was thus going to pieces. But this is not the end of the story. The draft five-year plan published in December 1973 is having further rough weather on account of scarcity of oil and energy and of foreign exchange and rising prices affecting the whole economy of the country. The planners are once more busy in recasting various details and it is possible that the provision for education may be further reduced particularly in the states sector.

Higher Education Cannot Be Isolated

The above discussion covering as it does the whole field of educational planning leads us to think of alternatives for short- and long-term development. Problems of higher education cannot be isolated to the field of higher learning only but they are linked closely with elementary and secondary education and with all forms of formal and informal training and education and with developments in science, technology, agriculture, medicine and social sciences all of which are interlinked for understanding social development and manpower requirements which the system of higher education hopefully produces.

Two recent studies both by eminent socialists are noteworthy. One is *Education and Jobs: The Great Training Robbery*[15] by Ivar Berg, Professor of Sociology and at present researcher at the Centre of Urban Education, New York, and the second is by Daniel Bell also Professor of Sociology at Harvard in his book *Coming of Post Industrial Society* (1973). Ivar Berg is a revolutionary thinker and Daniel Bell is more concerned with the technological changes and social growth in the post-industrial society as applied to American conditions. Bell was more concerned with the shattering of the dream that the era of insecurity would be over which was the kind of thinking about the 60's of the present century. But within a decade the pendulum swung to the other extreme when scholars started talking of the doomsday depletion of resources on account of exploitation of natural environment, overpopulation, polution of air and water and uncontrolled industrialization. The suggestion of course is to curtail our appetite and control exploitation of natural resources.

Bell[16] points out that even Karl Marx when he speculated on what the future society would be like felt that the condition for socialism, for genuine equality among men, was economic abundance, the possibility of which lay in the extraordinary accomplishments of an industrial and scientific revolution. The combination of technical efficiency and capital accumulation served as a magic for building growth upon growth at compound interest. While attempts in the direction of socialism are being made by us in the field of education, what applies to developed countries may not apply to underdeveloped countries like India because economic abundance is not available and that is a precondition to equality of opportunity, to educational planning and development. Therefore, all efforts should first be directed towards progress in economic sectors like agriculture, industry, communication, power, transport, etc., governed by the technological revolution of to-day and once the country becomes economically self-sustaining, two demands automatically follow which are interdependent, viz., manpower requirements and educational and training programmes. Logically it follows that if we do not have resources for the time being, we must create resources through economic sectors like they did in England in the nineteenth century.

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[15] Berg, Ivar, *Education and Jobs: The Great Training Robbery*, Penguin Education 1973. This has been discussed further in Chapter IX 'Attack on Institutions'.

[16] Bell, Daniel, *The Coming of Post Industrial Society*, Basic Books Inc. New York, 1973

It can be argued that the economic problem of the country cannot be solved without trained manpower. But the resources for a trained manpower cannot be made available without the solution of the economic problem. This becomes a vicious circle and the only way to resolve the dilemma is to balance the two, i.e., economic progress running side by side with educational development in such manner as not to create problems of unemployment among the educated and of highly qualified engineers and technologists, resulting in frustration among the youth. In this chapter it is enough to say that the imbalances in trained manpower today are due to the fact that educational programmes in a large way are unrelated to the development of the economy. And education cannot be completely revolutionized. Education is one of the most tradition-bound fields.

This opens a new planning outlook of modernization, of structural changes, systems analysis and effective utilization of resources, discussed in later chapters.

PART II

HIGHER EDUCATION & SYSTEMS

CHAPTER IV

ECONOMICS OF EDUCATION

Introduction

Economics of education is not merely costing and financing of school places. It is concerned with the question of the impact of education on such phenomena as the occupational structure of labour force, contents of courses in relation to the recruitment and promotion practices of employers, the migration of labour between regions within a country and between different countries, distribution of personnel and income, the propensity to save out of current income and most general of all, prospects of economic growth.[1]

The question is whether economists can provide something like investment criterion for education. This is a new area of research more prominently since 1960, when a number of studies became available.

The economics of education has contact points with labour economics, public sector economics, welfare, growth theory and development economics.

Of course, education is only one type of investment in human beings. It covers not only formal education provided in schools, but out-of-school education in the form of labour training, 'on-the-job' training, adult education, agricultural extension, etc., which cannot be left out of account in any discussion of the subject, Economics of Education.

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[1] See *Economics of Education*, Vol. I & Vol. II, Ed. M. Blaug, Penguin, 1968 & 1971.

See also Blaug, M., *An Introduction to the Economics of Education*, Penguin Books, 1970.

Daniere, Andre, *Higher Education in American Economy*—Random House, 1964.

A peculiarity of the education system is that it is often being considered an industry which means justification of economic treatment. But it pursues multiple objectives not related to profits. Secondly, it has an unusually long production cycle which means building up most of its facilities ahead of demand. Thirdly, it is a part of self-imposed custom and tradition and therefore it is very much like rigid handicraft technology. Fourthly, a large part of its output is fed back into the system.

Thus an inflexible production structure is established and there are sharp discontinuities in the flow of output resulting in chronic disequilibrium, such as manpower shortages and surpluses. This phenomenon can be illustrated by conditions of technical manpower in India. The Sukhtankar Committee[2] (1956) of the Planning Commission at the time of preparing the Second Plan recommended a larger intake and output of engineering personnel in polytechnics and engineering colleges and expansion of and addition to the existing institutions. The Thacker Working Group on Technical Education[3] and Vocational Training (1960) also appointed by the Planning Commission considered personnel required for the third (1961-66) and the fourth (1969-74) plans in 1959 and suggested provision of additional facilities for technical education in relation to the expected economic development in the country and the expansion of such sectors as industry, agriculture, communications, railways, defence, roads and buildings. Balanced with this was the provision for training of craftsmen and a number of Industrial Trade Institutes (ITIs) were established for the purpose in the third plan. By the middle of the plan, however, further acceleration of this programme was thought of on account of the Chinese attack and the Pakistan war and soon after that, i.e., after 1962, there was recession and we arrived at the present position of about 70 thousand engineering graduates and diploma-holders being unemployed. Manpower shortages were visualised in the second plan and also for the third plan and forward action was taken in the provision of larger number of seats in the institutions. On account of the economic set-backs of the early 60's, there were manpower surpluses.

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[2] *Report of the Engineering Personnel Committee*, Planning Commission, Government of India, 1956 (Chairman, Sukhtankar).

[3] *Report of the Working Group on Technical Education and Vocational Training*, Planning Commission, April 1960 (Chairman, M. S. Thacker).

The problem can be put in simple terms: a national economy depends so much on the productive capacity of the adults, say, of the age group 20-55, that is nearly 60 per cent of the nation, which will mean about thirty crores (300 million) of our population of 55 crores (550 million). These persons must be found adequate work and must be productive particularly those on whom the country has invested large sums of money on education and training at different levels.

The right to work in a democracy is implicit in our Constitution, but the work has to be found. To say there is no work would mean difficulties in planning for the state. In fact, all planning and development not only should generate more work and occupations, but also generate new types of occupations as a result of changing technology and development of science.

Studies

The main work in this field has been done during the last two decades prominently in the universities of the U.S.A. and by UNESCO, the economists of the U.K. and the Continent and in international conferences. The Ford Foundation gave a good deal of stimulus by financial assistance to the study of economic analysis and we have studies of the problem after 1950 by eminent scholars like Philip Coombs, Sydney Tickton, Clarens Faust, Henry Heald, Alvin Enrich. The significant works since then have been those of John Vaizey, the *Economics and the Cost of Education* (1962), Schultz, *The Economic Value of Education* (1963), Gary Becker, the *Returns on Education Investment* (1964), and Sydney Tickton, *Planning in Education and Educational Salaries*. The office of Education, U.S.A., published a helpful anthology on the subject. The London School of Economics established a separate branch of studies in economics of education in co-operation with the Institute of Education. Claus Moser, Richard Layard, John King, M. Blaug, M. Peston, Tyrrell Burgess,

M. Woodhall and many others have come out prominently with their studies.

Along with this the Organization for Economic Co-operation and Development (OECD) brought out important studies in the subject and in 1963 held a three-day conference attended by some of the outstanding economists to probe into the relationship between education and economic growth. Since then the group has been meeting frequently every year. Earlier in 1961, a 5-volume study was brought by OECD on economic growth and investment in education which clarified many of the technical and methodological problems in the study of the subject.

Leontief's input output laboratory and studies such as the one by Andre Daniere on *Higher Education in American Economy* (1964) awakened the interest of the Harvard School. The interest in employment, market imperfections, institutional costs and costs per capita at different levels of education, efficiency in the institutions and competition among scholars, both teachers and students in higher education, planning, free education, education with loans, direct and indirect costs, became subjects of detailed studies by economists as well as educationists.

A text-book on the subject is *Introduction to the Economics of Education* (1970) by Mark Blaug. Application of the methodology of cost analysis so far as the Indian conditions are concerned is seen the *Causes of Graduate Unemployment in India* (1969) by Mark Blaug, P.R.G. Layard and M. Woodhall. In India interesting analysis of the problem is done by A. R. Kamat in his study of the unit institutional cost in higher education in *Two Studies in Education* (1968).

The theoretical part of the subject is covered in the *Introduction to the Economics of Education* by Mark Blaug. Andre Daniere in *Higher Education in American Economy* (1964) discusses the rational economic policy in education applied to the American sector of economic activity. The Penguin two volumes of *Economics of Education* (1968 and 1969) cover readings from the writings of different authorities on the various aspects of economics of education. M. Woodhall's *Cost Benefit Analysis in Educational Planning,* UNESCO publication of IIEP (1970) and

Economics of Education by Richard Perlman (1973) are useful introductions to the subject.

Major Issues

Major issues in economics of education and cost analysis cover measurement of costs and measurement of benefits. It also includes measurement of discounted cash flow and rate of return on investment in education.

Objections

There are a few objections to the method employed in cost benefit analysis and these have been summarised as follows by M. Woodhall.[4]

"(1) Earning differentials reflect differences in the natural ability, motivation, social background, sex, occupation, non-formal education, etc., of workers, as well as differences of education, so that earning differentials cannot be used as measure of the pure benefits of education.

(2) In addition, earning differentials do not adequately measure differences in the productivity of workers because of imperfections in the labour market, so that differences in earnings do not provide a measure of the direct economic benefits of education.

(3) Besides these direct benefits, education generates indirect, or *spillover* benefits, that is to say, education may raise the productivity of people other than the educated worker himself, and these benefits are not shown up in earnings differentials; nor are non-economic benefits reflected in earnings differentials.

(4) Rate-of-return calculations assume full employment of educated workers, whereas many developing countries are experiencing unemployment of graduates and secondary school leavers.

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[4] Woodhall, M., *Cost Benefit Analysis in Educational Planning*, UNESCO, IIEP (International Institute of Educational Planning), Paris, 1970, pp. 25-26.

(5) Age earning profiles, drawn from cross-section data, which provide the basis for the rate of return calculations, reflect the present and past demand-and-supply conditions, whereas it is future demand and supply that concern the planner; therefore, rates of return provide a poor tool for educational planning.

(6) Private rates of return are meaningless because individuals do not make educational choices, as though they were making a purely financial investment decision."

This is a formidable list of objections each of which has become a matter of further investigation, analysis and study of economists of education.

Many writers have also rejected the whole concept of cost benefit analysis[5] but such a discussion would indicate that the economist's analysis would only suggest ways in which educational plans could be modified in order to take account of specific problems.

Ability and Education—Inter-relation

The question of inter-relation of ability and education has been taken up by many scholars in America.[6] The main point is that higher earnings are not necessarily attributable to higher education. The duration of study may be a powerful factor in explaining differences in earnings but it cannot itself be correlated with other factors such as persistence and motivation. One explanation offered is that while ability and home background are important, they can be effective only in conjunction with additional education that will have a strong influence on earning power. But in a developing country like India where the general standard of higher education in most fields is comparatively low, the social motivation is intense which cannot be discouraged by controls on admission. The students and parents are not dismayed by attrition rates or unemployment prospects.

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[5] See criticism of Berg, Ivar, *Education and Jobs: The Great Training Robbery*, Penguin Education, 1973.

[6] e.g. Morgan, J. N., David, M. H., Cohan, W. J., Brazer, H. F. in their work *Income and Wefare in the United States*, McGraw-Hill, New York, 1962.

Relative Earnings

Another point is that relative earnings reflect the relative productivity of workers and this has been denied by many economists because of the rigidity in labour market. In a developing country like India methods of determining wage rates are very often lost in habits and traditions and linked up with strength and power of trade unions. Archaic wage structures continue in India and government salaries and those in public and organized private sectors are relatively so high that they are unrelated to the national per capita income. This creates difficulties for scientific studies of income-investment relations in India.

Externalities of Education

The spillover benefits of education, known as "externalities" or "the non-monetary consumption benefits", are a problem for the cost benefit analysis, because people demand education as a form of consumption. This is true in India where primary, secondary and even higher education are increasingly being demanded not for any other purpose but for consumption. For example, out of 4 million[7] students in universities and colleges nearly 22.6 per cent are women for some of whom there is employment but a large number enjoy non-monetary consumption benefits of education. It is wrong to deny them education at all levels because it will be a wrong assumption that education does not generate other benefits as well.

Naturally when it is a matter of public policy various questions could be raised as whom to educate and how to educate. This is a policy matter for the universities and the states and the thinking on the subject goes down to two important problems of the structure of education and systems analysis. In quantifying benefits the weight that should be attached to the other benefits or externalities of education is a significant factor and some economists have tried to value it as 30 per cent and various devices are being employed to measure benefits. The study of Indian conditions would reveal this percentage to be higher.

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[7] *University Development in India—Basic Facts & Figures,* 1970-71, U.G.C., 1974, p. 41.

It is often stated in discussing the subject that assuming that education generates external benefits it is possible that higher education yields more indirect benefits than primary schooling. But in relation to Indian conditions basic data have to be made available by the statistical and information section of the Ministry of Education, or studies subsidized by the government in university departments.

Inputs and Outputs

Wassily Leontief, the Nobel Prize winner in Economics (1973), has analysed the economy by the input-output method and indicated that the internal structure of economy is dictated largely by technology. The question is raised in relation to the cost benefit analysis of educational planning whether the input-output method can be suitably applied to educational development.

To quote Leontief,[8] "Estimates of gross national product, total consumption, income per capita, rate of investment and similar indices of economic activity are now compiled and published by practically all countries. Such figures give quantitative expression to the otherwise plainly apparent fact that some countries are rich and others poor. When these figures have been plotted over the recent past, they indicate that the gap, between the rich and poor has been widening. These statistics do not of themselves suggest any ready explanation of the difference in overall performance among the national economies nor do they point any practical ways to narrow the gap."

In a framework of systems analysis educational development has to be integrated with the system of the economy of the country. It must be an articulated structure. Assuming that the national economy is developing towards an articulated structure we have to see that the educational system is also articulated because efficiency and output results depend upon it.

[8] *Technology and Economic Development* published by Scientific American, "The Structure of Development" by Leontief, New York. A. A. Knoff, 1963, p. 105.

Investment in People: Limitations and Problems

Frederick Harbison,[9] another authority on economics of education, took sample studies in the developing countries of Nyasaland, Colombia, China, and Egypt and pointed out that capital investments could be made not only in industry but also in people as the progress of a nation depends first and foremost on the progress of its people. Though this in a sense is also the thesis of the Indian Education Commission (1966) analysis of the difficulties which the nation has to face in making investments in education has brought out to the fore that any investment in education has to be balanced, firstly, with the capacity of the nation to invest and, secondly, with the perspectives for this investment. This will mean a detailed study of manpower problems in such manner as to see to what degrees it is essential to spend money on education for production in relation to the labour force necessary for the purpose. Harbison points out that assuming that the basic problem in most of the underdeveloped countries is not of poverty of natural resources but of underdevelopment of their human resources, the main task would appear to be to build up human capital to improve education, skills and to prepare men and women for the national task of building up a new country. But his comments on such a task are significant.

He says, "The way to start seems obvious and quite uncomplicated; build schools and launch a massive programme of primary and secondary education and technical training. But the problem is not really that simple. These countries are not in a position to adopt any such crash programme. Their limited funds for investment in education must be placed where they will do the most good. Moreover, the shot-gun approach may create more difficulties than it solves; in some countries the training of more engineers, for example, may produce nothing but trouble. In any country, developed or undeveloped, education can become socially malignant if its people do not have a chance and the incentives to use it."[10] This is what has happened in India today when we talk of the educated unemployed.

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[9] *Technology & Economic Development* article 'Education & Development', Frederick Harbison, Scientific American Book, New York, A. A. Knoff, 1963, p. 95.

Strategy for Human Resources

Harbison after analysis of developments in some of the countries and especially in another study done by him in collaboration with Charles A. Myers entitled *Education, Manpower and Economic Growth*[11] has come to conclusions which can be summarised as follows:

(1) There is a strong correlation between a country's educational development and its economic productivity, but the best single indicator of a country's wealth in human resources is the proportion of young people enrolled in secondary schools.

(2) Education alone is not enough to assure a nation's prosperity. For example, in its level of education Japan certainly ranks among the world's top ten countries but its gross national product per capita is only about $300—far below the advanced countries' average of $1100. Egypt, India and Thailand also rank high in education and relatively low in gross national product per capita whereas in countries such as Saudi Arabia, Liberia and Venezuela, the situation is reversed.[12]

(3) Many factors other than education entered into a country's economic progress including its natural resources, foreign markets, outside assistance, etc. Harbison, therefore, concludes that we cannot say that an investment of X dollars in education will produce a Y result in economic growth. All we can predict is that a well educated and motivated people will do extraordinarily well.

(4) In its educational investment a country must adopt a balanced programme, suited to its needs and stage of development, or it may run into trouble. A number of choices have to be made and for the educational programmes we have to find the best compromise among (i) quality and quantity (ii) science and

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[10] *Ibid.*, p. 95.

[11] See also "Strategies of Human Resource Development" by Harbison & Myers in *Economics of Education*, Penguin, Vol. II, *op. cit.*, pp. 13-60.

[12] *Technology & Economic Development*, *op. cit.*, p. 103.

the humanities (iii) vocational training in the institution and on the job (iv) regulation of salary incentives by the state and by the market and (v) the needs of the individual and the needs of the state.[13]

(5) "A country's educational investment and goals must be shaped realistically to the level of its economic development. Whereas in a nation such as the United States a high school education barely qualified the persons for a semi-skilled job, in an underdeveloped or partly developed country it may suffice for the highest position until the country is able to advance to a higher level."[14]

(6) "Education generates a strong demand and push for more education. This has been true in all the advancing countries. The development of elementary schools creates a demand for secondary education and this in turn for higher education of many kinds. Unlike the demand for material goods, which may become saturated, demand for education is never really satisfied not only because it offers the individual an endless frontier of advancement in career and status but also because it opens irresistible frontiers for the human mind and curiosity."[15]

It becomes difficult to criticise inertia on the part of the state governments or central government in the system of education in India. Many people also blame political immorality and corruption. Some of these factors have to be recognised and remedies sought through educational programmes which could energise and inspire people. Such remedies are in the first place to be found in an articulated structure of education and second in a financially well organized system of education. Even the "Harbison & Myers" thesis (1964) has many limitations, as pointed out by M. J. Bowman (1966) and A. K. Sen (1966).

F. H. Harbison and C. A. Myers produced an influential book, *Education, Manpower and Economic Growth* (1964) and they succeeded in ranking 75 countries with the age of weighted enrolment index that turned out to be highly correlated with the GNP (Gross National Product) per head. These countries were then grouped into four "levels of human resource development" for each of which the authors then proposed detailed development strategies. This work has been criticised by scholars, prominently by Mary J. Bowman, and Amartya K. Sen.[16] But the fact remains that the thesis of the two authors was not meant to be a specific recommendation for any country but was to provide a framework within which meaningful internal comparisons could be made. The main criticism of such an approach is that it is difficult to establish any logical connection between the educational development index and the index of human resource development. Professor Sen points out that in such a method stock of human resources could be confused with the flow of human resources through the educational system. But M. J. Bowman has concluded that even if the thesis could be challenged, the intuitions and the constructive advice given in the book provide a framework for further research work.

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[13] *Ibid.*, p. 104.
[14] *Ibid.*, p. 104.
[15] *Ibid.*, p. 104.

Conceptual Problems and Policy Issues

It is only during the last 15 years that economics of education has been taken up seriously the world over and yet it has not been integrated into the educational thinking of the central or state policies in India, because economists, sociologists, and educationists (including educational administrators) of India have yet to study the problem in greater detail.[17] Factual data about the earnings of the people who are educated have to be collected and it would be laborious, scholarly and costly work before we have analytical studies of the "input-output" problem in India.

If we attach economic value to the human being, it creates controversy because the person's real or intrinsic worth may be more than the investment made in him or the economic and social returns made by him to society.

The economics of education is essentially the economics of quantification. It means how much society has invested in the man for his education and training and how much is the return on the assumption that he is human capital.

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[16] *Economics of Education*, Vol. II, Ed. M. Blaug, Penguin, 1969, First three articles.

[17] See the study of "Unit Institutional Costs in Higher Education" by A. R. Kamat in *Two Studies in Education*, Gokhale Institute of Politics & Economics, Asia Publication, 1968.

The humanists however, would always feel that the function of education is to broaden the perspective of a man and refine his cultural tastes and the general stance is that higher learning and knowledge cannot be quantified in terms of money. There are non-monetary benefits or what are known as psychic or cultural benefits, described as 'externalities' of education.

The economists of education, however, feel that while there may be other benefits they cannot be easily measured though efforts have been made to measure them.[18] The measurable part is the investment in the man and his returns for which even the indirect costs are calculated as "foregone earnings" while attending the college or university. Even this measurement is yet a complicated problem and unanimity among economists of education regarding methodology and mathematical models to be employed has yet to be obtained.[19] The main function of any investigation in terms of the economics of education is to see that prospective students and the state government which finances education must have information on economic costs and benefits of the investment outlays. Non-economic factors can be considered in their place at the time of formulation of policy.

Three Questions

The first question therefore is how much should a country spend on education or how should education be financed with the state resources for the purpose of economic growth and all-round national progress. Secondly, how much of this education is investment and how much of it is consumption? Thirdly, would the financial investment in education give the returns which can be weighed against returns if the investment was made in other forms of national needs?

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[18] See p. 71 where it has been pointed out to be a rough estimate of 30 per cent.

[19] *Economics of Education*, Vol. II, *op. cit.*, first three articles, pp. 13 to 66, by F. H. Harbison and C. A. Myers (1964), M. J. Bowman (1966), and A. K. Sen (1966).

If part of education was consumption, what is its proportion when we consider higher type of education or research in centres of excellence? The proportion of consumption aspect of education would seem to decrease as we go to higher levels and to professional education. Consideration of the time of the students in the educational institutions, requirements of teachers and buildings, and equipment demanding financial investment have to be weighed against the investment with other self-generating schemes of development such as industries and agriculture. It is thus a question of education contributing to the human resources for economic growth in a low income country and questions are often asked as to whether investment required for expansion of primary education in an underdeveloped country could not be balanced with investments in industries, agriculture, communications, roads and other economic sectors which could produce resources for development of education. The argument is if we produce more economic goods we can provide more education and not *vice versa*. These thinkers agree that education helps economic growth but analysis must indicate how and at what point of development. Secondly, what should be the nature in terms of percentages to make it a balanced economy?

Education and Economic Growth: Relationship

Various methods are employed by scholars to build up a relationship between educational development and economic growth. There is the manpower forecasting approach and the rate of return approach. Forecasting manpower requirements for the next five or ten years very often goes wrong as changing technology requires different type of manpower unforeseen in the earlier calculations. Since in an industrialised society, labour-saving devices are employed by use of sophisticated machinery, the training of labour in industry and agriculture becomes a constant problem for any educational system of the future as it is likely to become obsolete in a short time. But how much of it should be done in the institutions and how much in the factory or the farm in service is an important question as the labour saving devices go on improving and changing. A comprehensive view is that education in the institutions or training in the work itself are all elements of the same process of training. Such a view may set limits to the area of investigation but may not result in decisions as there will be many immeasurable quantities against a few that can respond to a mathematical model. If both the people and the state do not have the necessary financial resources compared with the amenities provided by advanced countries, where shall we draw the line? The method of quantification of the school system has been employed by the economists and the question of finance of education and budgetary implications of educational expansion have been examined. The techniques are useful in order to programme and plan education. Economic analysis could be an aid to arriving at policy decisions, to consider social and political goals against economic growth.

Economic Planning

The field of economics of education is concerned with economic planning and critically examines the wisdom of conventional educational policy which we find in educational and government documents about policy-making. In order to apply economic analysis to the educational system, Harbison and Myers said that while it is difficult to analyse the rate of accumulation of human capital available, human resource indicators as second-base measures could be considered on the basis of a composite index, as follows:

(1) No. of teachers per 10000 population.
(2) Engineers and scientists per 10000 population.
(3) Physicians and dentists per 10000 population.
(4) Pupils enrolled at first level (primary education) as a percentage of the estimated population aged 5 to 14 inclusive.[22]
(5) The adjusted school enrolment ratios for first and second levels combined.
(6) Pupils enrolled at second level (secondary education) as a

percentage of the estimated population aged 15 to 19 inclusive, adjusted for length of schooling.

(7) Enrolment in the third level, i.e., higher education as a percentage of the age-group 20 to 24.[20]

In addition to these, there are two other indicators which apply to orientation of higher education. These are: (1) the percentage of students enrolled in scientific and technical facilities in recent years, (2) the percentage of students enrolled in faculties of humanities, fine arts and law in the same year.

In a composite index of levels of human resource development, Harbison and Myers developed the four levels in different countries which have been classified.

Level 1, Underdeveloped; Level 2, Partially developed; Level 3, Semi-advanced; Level 4, Advanced.

Then they established a correlation between the composite index of human resource development and GNP of each country.

There is no doubt that economists and sociologists in India will find a good deal of research material to pursue this line of thinking and it is suggested that this problem of inputs and outputs in education cannot be resolved unless basic investigations are carried out in the Indian universities.

Cost Benefit Analysis and Planning

Cost benefit analysis in educational planning cannot be ignored because when resources are scarce we must try to examine whether investment of every rupee results in benefit either for identified consumption or for production.

Such a study of economics of education helps educational planning in many ways; for all planning consists of a choice between alternatives and though cost benefit analysis cannot be a sole criterion for educational planning, it can help in decision-making.

It is necessary to use the techniques of economics of education because we are very much concerned with the problems of allocating resources to education among competing sectors of economy and between different types of education to attain the goals of national progress and development. How we spend amounts for primary, secondary and tertiary stages of education is the primary objective of educational planning. Since all planning is meant for economic growth, how far higher education contributes to this growth is necessarily a study in the field of economics of education though it will mean only one aspect of a complicated problem.

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[20] For Indian conditions age-groups would have to be suitably modified. Secondary level could be 14-16 and 17-18 and higher education up to degree could be 18+ to 21+.

It is possible to make exaggerated claims for cost benefit analysis; this alone will not solve problems of allocation which involve political, social and moral questions. We could say, for example, that compulsion at the primary education is now an obsolete concept in terms of what Illich and Reimer have said about it. But we cannot say that universal education for children upto the age of 14 is not a desirable goal if we have the means to achieve the objective.

Rate of Return

A scholarly study of Indian conditions on the basis of cost of education and the rate of return on education has been made by Mark Blaug, Richard Layard and M. Woodhall, in *Causes of Graduate Unemployment in India*. The analysis of the situation and the suggestions regarding diagnosis and cure, however, are lost in the fact that ultimately political decisions have to be taken guided by the analysis of the problem that is socially acceptable. It has been argued that there is overproduction of graduates compared with the primary school leavers. Does it mean freezing of the intake of students in colleges and universities? To quote the authors.[21]

"The Education Commission reported in June 1966 and a Parliamentary Committee was instituted in April 1967 to consider the report of the Education Commission and to identify a programme for immediate action. The Indian economy had entered a period of recession in 1965-66, partly but not wholly owing to the failure of the monsoon. For nearly two years the industrial production, far from growing at the projected rate of 12 per cent per annum, had been stagnant. In the circumstances, one might have thought that the Education Commission's recommendations for enrolment expansion at the secondary and higher levels would have been rejected as far too high, at least over the next few years. But on the contrary, the Parliamentary Committee—which, oddly enough, included Dr. Triguna Sen, the new Minister for Education, who had also been a member of the Education Commission—took grave exception to the attitude of the Education Commission towards post-primary explosion: 'we have placed greater emphasis on expansion of facilities than the Commission has done, especially at the school stage. We have therefore not agreed to the Commission's proposal that the system of selective admissions should be adopted at the higher secondary and undergraduate stages... we believe that every effort should be made to provide admissions to institutions of higher education to all eligible students who desire to study further,'[22] in short an open door policy at the higher levels. Needless to say, this does not stop the Parliamentary Committee from simultaneously advocating universal primary education as its first priority. Alas, no indication is given how all this is to be paid for: the entire history of Indian educational planning is here recapitulated in miniature.

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[21] Blaug, Mark, Layard, Richard, Woodhall, M., *The Causes of Graduate Unemployment in India*, Allen Lane, The Penguin Press, LSE Studies on Education, 1969, p. 241.

"Enough has been said to show that even the Education Commission's cautious efforts to control the educational explosion at the higher levels will probably go the way all previous attempts at restraint in post-independence India. The state governments have never been willing to resist the rising private demand for upper secondary and high education and the central government has never had the power to force the states into line."[23]

The question raised by the authors is whether the state should modify the total supply of the educated people ensuring the employment of a given stock. To put this in terms of economics of education the authors had to consider the social rates of return of the educated persons. They point out that the fact that a proportion of better educated people are unemployed proves nothing, as there is unemployment at every level of education.[24] Besides they point out that there are imperfections of most labour markets and a few more graduates have to be turned out in order to employ at least 80 per cent of them.[25] They come to the conclusion that if we were to produce more primary school leavers and less graduates the rate of return on primay school will fall and that on the first degree will rise and that the state should continue to divert resources until the two rates are equalised.[26]

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[22] *Ministry of Education Report of the Committee of Members of Parliament on Education* 1967, National Policy on Education, 1976, p. IV, see also pp. 24, 26.

[23] Blaug, Mark, etc. *op. cit.*, p. 58.

If it is argued that higher education is overexpanded relative to primary education international comparisons, though not necessarily relevant in all respects, do not prove it; the Indian percentages of primary education, secondary education and higher education for the respective age-groups are 80, 40 and 4 which do not show a high level of numerical attendance in higher education for the large economic tasks undertaken by the nation. But the detailed study by the authors indicates that the bulk of graduates are employed in the public sector where there is reason to believe that they are paid above their marginal private product whereas the bulk of primary school leavers are employed in the private sector which is much more likely to pay labour its marginal private product. They further argue that if the difference between private and social products is indeed the same for primary school leavers and graduates, we have in fact overestimated the social rate of return on first degrees.[27] There is another argument which is advanced by the authors that education very often has to go beyond economic growth. Elements such as equalisation of educational opportunity, political stability, national solidarity and cultural enrichment are foremost problems for educational development which may not have measurable value for economic growth. This line of thinking, however, lands us into difficulties against a balanced economic development in all sectors.

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[24] *Ibid.*, p. 240.

[25] See *Ibid.*, p. 240-41.

[26] *Ibid.*, p. 240.

[27] *Ibid.*, p. 241.

There are social and political forces which often challenge the analysis of economists of education. When economic growth does not take place as planned because of various natural and political calamities, we have examples of over-production of engineers and government had to take a step in 1968-69 and later regarding reduction in the annual intake of students in engineering colleges because the stock of engineers had been growing faster than the demand for their services. This leads the authors to the conclusion that "until definite evidence of surging demand appears, we think there is now an irrefutable case for reducing the rate of growth of the stock of educated people. This involves rate of growth of enrolment. By the same token there is a case for raising the rate of growth of primary and middle school enrolments, since there is a favourable rate of return on education at these levels and the relative earnings of people educated at these levels have not significantly declined in recent years."[28] As has been pointed out earlier, this line of thinking has not been accepted by the Parliamentary Committee and the people cannot accept the logic of economic thinking on social grounds and the authors have not considered other alternatives for reducing expenditure on higher education and allowing the people to take degrees, through 'open university' or private study and the middle level institution of community/junior colleges.

We have suggested elsewhere that in international terms of educational development India has a unique significance of a fairly highly developed educational system and a poor economic growth. In order to balance the two, structural changes have been suggested along with systematic co-ordination and control.[29]

Graduate Unemployment

In India the rate of return from education must take into account the possible unemployment of the educated and adjustment has to be made in measuring benefits in terms of earnings of those employed as a proportion of the total output of the education system. The method adopted by the authors in *The*

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[28] *Ibid.*, p. 243.

[29] See Chapters VII—IX in this volume.

Causes of Graduate Unemployment in India discusses this question in Chapter IX. They point out[30] that "the actual value of the expected rate of return is dependent on certain critical assumptions, particularly about the effects of wastage and ability. However, this problem is not unique to education: estimated rates of returns on industrial capital are often equally sensitive to changes in assumptions about unknown factors. But even without being able to specify precise rates of returns, we can learn a great deal from this type of analysis." The authors conclude that the general picture is[31] "private rates of returns on educational investment exceed social rates; that private rates of returns on educational investment generally exceed alternative private rates; that the rate of returns on general first degree is much lower than the return of other forms of investment and that the social rates of returns on general higher education tend to fall below the alternative social rates."

This analysis, however, has been questioned by some other thinkers and particularly Sir Eric Ashby, who has said that cost benefit analysis applied to non-vocational education is "nonsense."[32]

Useful Technique for Planning

It cannot be denied that cost benefit analysis has to be done in relation to economic growth. Scientific methods that indicate a better return on investment will naturally be welcome and such an analysis will no doubt be debated among social scientists. Moreover, conclusions will guide the way in which limited allocations can be earmarked for definite sectors which show a promise of return. It is possible that organized adult education may give better returns than investment in compulsory primary education. It is also possible to prove that investment in junior and community colleges covering all types of training under one umbrella may give better results than investing money on levelling up high schools to the higher secondary stage and distributing limited finances in uncontrolled diverse ways. The benefits of structural and systems analysis may also be another method to indicate directions of planning.

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[30] *Op. cit.*, p. 232.

[31] *Ibid.*, p. 234.

[32] Ashby, Eric. 'The Structure of Higher Education: A World View' in *Higher Education Journal*, Vol. 2, No. 2, May 1973, p. 149, Elsevier, Amsterdam, The Netherlands.

We cannot make any exaggerated claims for cost benefit analysis. We have found that the economic tool may not directly help in solving the problem of earmarking funds for a particular sector of educational development or for transferring the investment from one sector to another. When we invest in education we have to think of highest rates of returns in a direct sense of economic growth and also the cultural sense of psychic benefits. The first could be measured and the second could be felt as consumption externalities and attempts could be made to measure these values as well. It is difficult to say that the future demand and supply relations will necessarily match those that are obtained today. For changes in economic growth are quick and effective and demand and supply relations change quickly as some demands of today become obsolete tomorrow and new demands are created which have to be supplied by new techniques of production.

In any special study by economists, they would normally leave out elements of social tension such as traditions, caste, feudalism, corruption, administrative inefficiency and take a theoretical stand which very often is disturbed by other factors.

From the above discussion, it will be seen that cost benefit analysis may not be the answer to problems of investment in education in India at present but it may help in decision-making. To quote M. Woodhall:

"(a) Cost benefit analysis may point to the need for changes in resource analysis, in favour of those types of education offering the highest rate of returns. Since cost benefit analysis is a form of a marginal analysis, it can never show what will be the effect of a very large-scale change in the pattern of allocation, or specify the precise magnitude of the change. But it can provide 'direction indicators'.

(b) Cost benefit analysis may suggest a rise of increasing the profitability of education, either by increasing its benefits or lowering cost. Measures for improving the utilisation of manpower will raise the benefits associated with education, while measures to reduce wastage will lower costs, in either case the rate of return to education will increase."[33]

Cost benefit analysis and economics of "input and output" relations along with manpower forecasting are approaches to the problem of educational planning particularly in an underdeveloped country. Manpower studies and cost benefit analysis are besides not separate techniques for educational planning but are interdependent and both of these should help in the analysis of the problem for planning programmes of action.

Over-production of Graduates

The economic thinking of the problem of over-production of graduates is that the rate of growth of enrolment should be reduced and the rate of growth of primary and middle school enrolments has to be raised.[34]

This may be theoretically sound but very naive and politically and socially unwise. This is not also consistent with recent thinking on mass higher education which is being significantly debated today in the publications of Carnegie Commission reports on higher education. At the second international conference on higher education held at the University of Lancaster, England, in September 1972[35] this point was debated. One of the most revealing views expressed at the conference was by Sir Eric Ashby who pointed out that "more" does not mean "worse" but undoubtedly "more means different". This means we have to explore possibilities of different avenues of higher education and return to structural changes necessary for the purpose.

Standards

If a country's resources cannot be stretched to such a purpose, man is ingenious enough to devise ways to manage within means without sacrificing the urges already released by mass education at the primary and secondary levels. When we talk of standards we only think of large failures and poor attainment of those who pass through the system. But a nation should be content, even if 10 per cent of students attain the high standards out of the large number of four million. This possibility has to be recognised for the time being in the Indian system, with research and advanced centres of study in the universities and higher institutions like the Indian Institutes of Technology, the Bangalore Institute of Science, national science laboratories, and institutions of all-India research and development.

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[33] Woodhall, M., *op. cit.*, pp. 46-47.

[34] Blaug etc., *op. cit.*, p. 243.

[35] Special Issue on Higher Education—*International Journal of Higher Education and Planning*, Vol. II, No. 2, May 1973, Elsevier, Amsterdam.

Motivation for Higher Education

Thus there are two aspects to the motive for higher education. One is that in India there is constantly the manpower aspect. The economic argument of manpower needs modification because once we modify the curricula to suit the needs of students and of economic and social compulsions what remains is a certificate for the students that they are qualified for such jobs as are related to the training but even this raises a number of complicated questions.[36] The first is that higher education and jobs have a thin relationship. What you do in a job whether it is engineering, medicine, teaching or a job in a factory or farm may hardly be related to 10 per cent of what you have studied in the universities. We have to take the position that a university trains a man preparing him to do a job in a comprehensive sense and that all higher education is meant to prepare for a vocation. The main purpose is to be able to grapple with a situation in relation to what the student has acquired and when on the job he has forgotten nearly 90 per cent of what he has learnt an important asset of an educated man is to know where to find information which he needs for the job and how he should apply it.

The second aspect is that the elected representatives of the people who are expected to know the pulse of the nation would naturally oppose every move to control education at the higher level. And as a matter of fact there is nothing wrong technically in this urge for higher education if the field is systematised and has organizational efficiency.

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[36] See also Blaug, Mark, *op. cit.*, pp. 236-41.

Cost of Education—Student Fees

There is an interesting point raised by the authors of the *Causes of Graduate Unemployment in India.* They say[37] "The state may be unable directly to control admissions into secondary and higher education, but it does control part of the price of admission, namely, the fee component of the cost of education. Fees now constitute about 40 per cent of the total expenditure on secondary education and the same proportion of total expenditure on general higher education. Clearly, there is some scope for action here although action is limited (because even full-cost fees would represent less than 40 per cent of the private cost of higher education, the rest being made up of earnings forgone). The policy that we would recommend is a gradual raising of the real value of fees—if it were not done gradually, it would lead to rioting—say, by 7 per cent per annum, thus doubling fees in 10 years and lowering the private rate of return, everything being the same, by about 2 percentage points."[38] This would be about the limit to which the process could go since fees would then represent a large portion of the cost of provision. However, it will require a massive effort of persuasion on the part of the central government to get state governments raise fees, the natural tendency is for the real value of fees to be eroded by inflation and, on top of this, many educationists, including members of the Education Commission believe that fees should be ultimately abolished even in higher education,[39] but not immediately. Higher education will always be populated mainly by students of better sections of the community, and scholarship holders of backward classes, and it normally increases the future income of those who receive it. There is, therefore, no argument in equity for abolishing fees, nor is there any argument for it from the point of view of India's manpower requirements.[40] There is basically a sound argument for raising both tuition and examination fees in the universities[41] but they have to be raised imperceptibly. The prices of all goods have increased during the last 20 years but the college and university fees have more or less remained stagnant and any talk of raising the fees will meet with opposition from the students and their guardians. Therefore, as suggested by the authors the tuition fees should be raised every year by about 7 per cent or to make it more concrete it should be raised by Re 1 per month, and the examination fee should also be raised by Rs. 2 per examination every year.[42]

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[37] Blaug, etc., *op. cit.*, p. 247.

[38] *Ibid.*, p. 201.

[39] *REC*, p. 112.

The argument of those who are against it is that the state should bear all the expenditure by way of grants. But the universities and colleges in India know very well how it is difficult for them to secure the necessary maintenance and development grants from the state governments, and this income should help them to create a proper budgetary resource.

Process of Upgrading Qualification for Work

One of the functions of higher education is to help in the division of labour in the economic progress of the nation. Logically this means the assumption that there is enough work to do for the educated people of a developing country though it does not mean that steps should not be taken to see that a nation is not overpopulated. But there should be an equation between the working class and the total work that has to be performed for economic growth. Qualifications for the type of work to be assigned always go on changing when there is more education. Formerly a primary teacher was only a middle-school trained or untrained person. Now he is a matriculate and trained and soon enough he (or mostly she) will be a graduate and a trained person. The process of upgrading of qualifications for the jobs is simultaneous with the spread of mass education at all levels. Some people often express the view that the standard of higher education has gone down so much that what was done by matriculates before is being done by graduates and even post-graduates now. This narrow view can be set aside and we have to note that in every progressive country like the U.K., the U.S.A., the U.S.S.R. and Japan, and also in India a social transformation is taking place with increased educational facilities because a job done by a more highly qualified person spills on his work the "externalities" or other benefits of higher education.

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[40] See *Ibid.*, p. 112.

[41] See Azad, J. L. Article 'Financing of Higher Education in India' in *The Higher Learning in India* 1974, *op. cit.*, p. 76 on 'Fee Policy'.

[42] This method was adopted successfully by the University of Indore, on the recommendation of a Committee of representative ten students and ten teachers with Vice-Chancellor as chairman, in 1969-70 raising the income of the University to meet the deficits and balance the budget.

Education and Economic Resources

Economic resources for education raise the question of priorities. Within the limited resources what is it that should come first and how and what should be spent on education? It will be socially wrong to deny educational opportunity to anyone, who is anxious to have it. If he has no merit he will soon turn away from the institution. But if he has minimum admission qualification he cannot be denied educational facilities. If education does not end in employment or in the conduct of one's life to the satisfaction of oneself, it becomes meaningless so far as the state or public investment is concerned.

What should be the approach of the state? The draft Fifth Plan has tentatively provided Rs. 1726 crores (which may be reduced further) for education including technical education as against Rs. 786 crores in the Fourth Plan. About Rs. 112 crores for mid-day meals under the nutrition scheme and about Rs. 160 crores for supplementary education under social welfare are being provided in addition.[43] Besides separate facilities have been provided for education in Medicine, Agriculture, Defence and Railway. The total enrolment in 1973-74 was 10.2 crores (102 million)[44] of which 44 lakhs (4.4 million)[45] were in the post-school higher education sector. 10.2 crores (102 million) population of the age group 6-23 in educational institutions is perhaps the largest number in the world. This has created the total problem of education. If we calculate the cost per capita at different levels it is so low that it can hardly be compared with that in the advanced countries. If employment problems in relation to investment were to be considered we would arrive at discouraging conclusions. It means in the first place that no deliberate attempt should be made to expand education and emphasis should be on a works programme. Psychologically rush for education is inspired by the fact that one who passes out of the college or high school is expected to have a good earning capacity for the family. In respect of primary education where parents are unemployed and starving it may be wrong to attract their children to schools by compulsion.[46]

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[43] *Draft Fifth Five Year Plan* 1974-79, Planning Commission, New Delhi, Table 9, p. 207.

[44] *Ibid.*, Part II, p. 8. See also table in Chapter V, p. 117.

We have to take care first of the employment of parents. This makes the problem complex, because we have to invest money both on the compulsory education of the children of the age-group 6-11 (and later 6-14) and also on the works programmes for employment of parents.

Indian Conditions for Consideration of Investment in Education

It is not enough to measure progress in terms of so many more educational institutions established or so many teachers appointed, so many more students educated, so many buildings constructed or so many graduates qualified from the universities. The question for national progress is development through work. Education alone cannot do much for the prosperity of the country. Historically it is yet to be proved that education is so much correlated with the prosperity of a nation, though a prosperous country develops its education system much better. Oil-producing countries are economically prosperous though educationally very backward. It must be said that education helps prosperity, if the system of education modifies itself and changes along with the changes involved in the progress and prosperity of a country and prosperity in turn develops education further. Economically it is the maximum utilisation of resources and manpower that matters for the prosperity of a nation.

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[45] Report of the Ministry of Education, 1973-74, p. 12.

[46] *Vide* Chapter IX.

The vicious circle is that when less money is invested in the system of education standards decline very much and university admission qualification becomes softer. This accelerates the scramble for places in higher education. The standards of testing and examination also go down and low standard admissions create malpractices among students and teachers for securing or giving, respectively, the certificate of qualification.

Cost benefit analysis, however, is an important field in which we have to work further in the university departments of economics and education and a tradition of research has to be established at least in select university research centres. This would need project assistance from the central government to the institutions undertaking research. Once basic data are collected and analysed, some indicators of the direction of growth will be secured to guide us further for planning programmes of education and the techniques evolved in the study of economics of education would help.

CHAPTER [illegible]

SYSTEMS ANALYSIS

Introduction

Systems analysis, a term used in engineering and technology and made applicable to organizational and management science, deals with the method of looking at education, not in bits but in totality; the interacting parts form a pattern, which may produce its own directions. It covers all aspects and types of education to form a unified system and avoids pedagogical jargon in organization. It attacks educational problems from the point of view of an organized economic pattern for efficiency and valuable results.

This is relevant to Indian conditions today because there are no readymade answers to various problems, prominent among them being those relating to students and teachers, finance, language, examination and governance of universities. In a systematic organization, these problems resolve themselves or find answers within the system which creates its own inner forces to fight any evils or corruption.

We have indicated that cost benefit analysis is a helpmate in planning. It also presupposes a system for comparative analysis. The Indian pattern of higher education is unwieldy, uncontrolled, unorganized. It is not a system.

Two recent studies are valuable for understanding systems analysis; one is the *World Educational Crisis—a Systems Analysis* (1968) by Philip H. Coombs of the International Institute for Education Planning (established by UNESCO in 1963 in Paris—or IIEP for short) and now Vice-Chairman, International Council for Educational Development, New York and the other is *Higher Education from Autonomy to Systems* (1972) edited by J. A. Perkins for the ICED, New York.

Loose System of Higher Education

From the managerial point of view, higher education in India does not present a picture of a unified and well organized 'education system'. We usually mean by the word 'system' an organizational pattern where several parts of the organic whole have a close relationship of one to the other and a change can be introduced on an orderly basis by using the interlocking relationships to produce the desired results. "To speak of a system is to speak of the coherence of a number of entities called parts of that system. What constitutes a system; what identifies the collection of entities as being coherent? Surely this is an act of mental recognition. A system is not something given in nature, but something defined by intelligence."[1]

In the year 1921[2] when the Central Advisory Board of Education was established as a result of the constitutional changes in India on the recommendations of the Montague-Chelmsford reforms, education including higher education had become a state subject. When diarchy was working in the states, that is, some subjects were transferred to the Indian members of the Council of Ministers and some were reserved mostly for the British members, education was one of the transferred subjects. This was meant to delegate authority to the Indian members on the basis of the recommendations of the Montague-Chelmsford reforms that progressively Indians must be made more responsible to run the government. But even then the states could have different ways of looking at education and may have different identities, without being co-ordinated at any stage. The division of responsibility was recognised by the Government of India in 1921 and the Central Advisory Board of Education as a co-ordinating and advisory body at the centre was established in the Department of Education by an administrative order. This was a step recommended by the Sadler Commission too (1919). The idea was to avoid disparities between one state and another and between the Centre and the states. Today the disparities have increased. This is partly because the CABE and its complementary organization, the Central Bureau of Education, have not been used seriously in the administrative machinery from 1950 to 1974.

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[1] Strafford. Beer, *Decision and Control*, John Wiley & Sons Ltd., London, 1966, p. 241.

[2] *Central Advisory Board of Education*, Silver Jubilee Souvenir, Vol. 1960, p.i., Ministry of Education, New Delhi.

The Centre runs three Central Universities of Delhi, Aligarh and Banaras. In addition, the Viswa-Bharati University has been declared by an Act of Parliament as an institution of national importance which means that it is being financed by the Centre through the University Grants Commission like other Central universities. Added to these is the recently established Jawaharlal Nehru University in Delhi in 1968 and now the proposed central universities at Hyderabad and Pondicherry. The five Indian Institutes of Technology are also declared as institutes of national importance and are being run by the Ministry of Education, Government of India, through an autonomous co-ordinating Board with the guidance of the All India Council of Technical Education. Besides, there are 9 institutions deemed to be Universities,[3] under section 3 of the U.G.C. Act which are the Centre's responsibility, the U.G.C. providing funds for development and the Ministry of Education for maintenance. The other universities numbering about 70 are financed by the State Governments for maintenance and the development grant is given by the U.G.C. with a matching share for a number of schemes by the states. The 22 agricultural universities are the concern of the Ministry of Food & Agriculture and the State Governments. The Medical Colleges affiliated to different universities are the concern of the State Governments in their departments of health with some grants given by the Central Government for specific schemes through the Indian Council of Medical Research; but the standard of medical education is maintained by the statutory Indian Medical Council, which has no power of making any grants to the colleges. The Colleges of Engineering and Technology are maintained by the State Governments and developed by the Central Ministry of Education with the advice of the non-statutory All India Council of Technical Education which is in charge of co-ordination and maintaining the standards as well as recommending grants for schemes of development. The legal education in the country is with the universities but the standards are directed by the statutory Bar Council of India without any power to give grants. The polytechnics for technicians at the post-secondary level are with the State Governments, and developed by the All India Council of Technical Education (AICTE) of the Ministry of Education. There is a sector of technical training described as craftsman training in the Industrial Training Institutes (ITI) established in different states which are sponsored by the Ministry of Labour & Employment in the Central Government and the assistance is given to the states in the ratio of 60:40 for development by the Central Ministry of Labour. They are also guided by a non-statutory Advisory Council, the National Council for Training in Vocational Trades, (NCTVT) located in the Ministry of Labour & Employment at the Centre.

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[3] UGC, *India Pocket Book of University Education*, 1972, p. 61. See also appendix I.

It will be seen that while primary and secondary education (except for the Central Schools all over the country) are entirely with the State Governments for maintenance and development barring a few Centrally-sponsored schemes which are gradually disappearing through the planning process, in the field of higher education,[4] there are too many authorities and a good deal of divided responsibility among the universities, state governments, UGC and Central Ministries of Education, Health, Agriculture, Law & Labour.

There is thus no unified authority for higher education and, secondly, there is a disparity in the development and provision of funds by the Centre for the Central Universities and the States for the State Universities.

Over the last twenty years a new development of national institutions has taken place and a large number of them are established in Delhi sponsored by different Ministries for the purpose of research and training. Some of them have been established legally by government notification as registered societies under an Act of 1862 if they fulfilled the conditions prescribed for the purpose.[5] The national laboratories are maintained and developed by the CSIR (Council of Scientific & Industrial Research) and they are doing research work in science and technology but their relations with the universities and the scientific world are loose and based on personal ties of the staff in the laboratories and the universities. The other national institutes like the National Council of Education of Research and Training (NCERT) along with the paraphernalia of State Institutes of Education mainly meant for research in courses of study, examinations and text-book production at the level of secondary education is a huge machinery where budgetary resources are provided by the Central Government. The Central Institute of Education, Delhi, was in the beginning established with the aid and administrâtive machinery of the Ministry of Education, but later taken over by the NCERT only for administration and not by the University of Delhi as should have happened logically. The NCERT also runs the four regional colleges of education at Ajmer, Bhopal, Mysore and Bhuvaneshwar. There seems to be no academic or administrative reason why these colleges should not be run by the respective universities as university colleges assisted by the central government on a cent per cent basis; but then the NCERT wanted to co-ordinate, administer and exercise power for which other co-ordinating devices could have been employed. The Institute of Applied Manpower, the Asian Institute, etc., are also run by the Central Government with large amounts of central grants.

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[4] i.e. at the post-school level, the school comprising 10 classes.

There is no doubt that a number of research institutions have been established by the Central Government at different stages of economic development in this country after 1947 with a view to encouraging research and production of research material. But the Central Government and its agencies run too many universities and institutions and research organizations at the university level—many more than in the U.S.A. Most of these institutions could have been *parts of universities*, run by universities with adequate grants from various Ministries as in the U.S.A. and that would have strengthened the universities. But the Ministries probably wanted more control. The only palpable control of the Ministries is financial and in the appointment of staff and that could have been exercised if most of them were with the universities with cent per cent assistance from the Government.

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[5] Some of these may be mentioned as illustration. NCERT, National Institute for Training of Educational Administrators, National Council for Social Science, National Council for History, National Council for Philosophy, Institute of Applied Manpower, New Delhi, National Council for Economic Development, Indian Institute for Mass Communication, The Film Institute of India, Poona, Central Institute of English, Hyderabad, Simla Institute of Research, etc.

The research institutions established with the central funds at the national level very often tend to be run like government departments of a particular central ministry in the Government of India in the sense that the salary scales of the staff, dearness allowance, service rules, etc., are like those applicable to the Central Government servants and controlled by government. The universities could do the same work at a much lower cost against research project grants from the central ministries like the federal funds awarded to universities and research scholars in the U.S.A.

However, in India, Government still sustain the illusions that Government-run institutions maintain better standards. Such a machinery helps the bureaucracy to create impregnable islands of vested interests.

The persons appointed in the central organizations of this type have neither the status of the employees in the secretariat, nor do they have the status of university teachers so that they do not get recognition by the universities for scholarly committee work, examinerships, membership of boards of studies and other academic bodies, except in a few special cases as specialists in subjects on a personal and not organizational basis. The research personnel in these institutions is very anxious either to secure a niche in the proper secretariat, or in the developing industries, or in the newly developed departments of the universities and these national institutes are hard put to it to retain personnel in their organizations.

It is true that the educational arrangement made in this way is closely connected with the cultural and historical factors. There is also in evidence over-enthusiasm of the central bureaucracy to establish institutions for administrative power, and for planning from central focus. But in any organization of educational system, a proper rationale has to be established as to the goals and objectives of the institutions, and the levels of research which the universities could do and other institutions could undertake. An important point about research projects assigned to universities is that university departments develop a school or a tradition of research and send their scholars to other institutes with research training to develop further work in the area of study. There is a continuous batch of fresh young research workers every year. This does not happen in the Government institutions, where workers are treated like permanent government servants.

Characteristics of the System

The following characteristics of the Indian educational system may be noted:[6]

Loose System

It is a loose system lacking in co-ordination and coherence and became worse in the period 1950-70. The Government of India thought in the early 1950's after the publication of the Report of the Secondary Education Commission that there will be universal pattern of higher secondary schools of 11 classes all over India followed by a 3-year-degree course; the admission standard to professional education was changed. This pattern of higher secondary schools was not accepted by the states. Earlier for Medical, Engineering and Agricultural colleges admission was after intermediate examination in a pattern of 2 + 2. On account of pressure from the centre, all universities, except those of U.P. and singularly enough Bombay University, which opposed the change as unacademic and undesirable, had changed the 2 + 2 pattern into 1 + 3, after the school leaving examination of a nearly uniform standard in all states. After the change on the recommendation of the all India Council of Technical Education, the admission qualification to engineering education was made a pass at the higher secondary examination or the first year of the 1 + 3 pattern, known as the pre-degree (P.D.) or pre-university examination (PUC) and the 4-year-degree course (though in some universities it was a 3-year-degree course of engineering), was turned into a 5-year-degree course, e.g., in the IIT's. Some universities like Bombay and a few others made it a 4-year-degree course after 2 years of college training, i.e., 1 year of PUC and 1 year of the 3-year-degree course. For agricultural and medical examinations the old intermediate science examination was given up and new adjustments were made for admissions. The idea was to add one more year to medical course by taking it away from the colleges but most universities could not agree to this. The whole affair has been a structural jumble.

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[6] See also Howe, Harold, II, *Indian Education in* 1970's, Ford Foundation, New Delhi, 1970, to whom the author is indebted for some ideas in this section. See also Chapter VI—'Structural Changes and Articulation'.

There was a debate about the disadvantages of early specialization against the 'catch 'em young' concept for an early entry to engineering colleges. The academics who wanted mature students from science colleges, well trained in foundation courses, would have liked a four-year engineering degree after the old intermediate science (or the new first year of the 3-year-degree course). However, the Indian Institutes of Technology had already established a 5-year-degree course, after the P.U.C. or higher secondary course and many students rushed to engineering education without considering if they did not have better alternatives in relation to their aptitudes. The academics hopefully look forward to winning ultimately, when the 10 + 2 + 3 pattern eventually settles down.

Enthusiasm for More Government Control

In 1947, only about 4 per cent of the population were in schools and colleges. Today, it is 15 per cent or about 10 crores (100 million).[7] The total enrolment is larger in India than even that in the U.S.A. Therefore, the operational problem is complex and administratively challenging. Moreover, the rapid expansion imposes a handicap. Old patterns continue with emphasis on elitism, on a prescribed syllabus and on external examinations. Restructuring of education for socialistic reorganization of the nation means building a new system and changing a well-established old one which has deep roots in the past customs and practices. The roots of most parts of the machinery go back to the pre-British days and are deeply entrenched in the system.

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[7] See Fifth Five Year Plan Draft Report 1974-79, Part II, 1973, p. 193 and other tables in Chapter VIII.

Diversity in School and College Education

Diversity in origin and in control of policy and practices is seen in different states depending on the circumstances and the time when the institutions were established with adequate or inadequate financial provisions. Most of the institutions are privately controlled and publicly financed. Duration of secondary education is not uniform; in some cases it is 10, in many 11 and in some 12 leading to the same school leaving certificate qualification.[8] Higher education is also diverse. The private colleges are very poor. The government colleges of which there were 656 in 1968-69 in a total of 2,931 colleges[9] lack an intrinsic academic approach as the faculty are government servants lacking freedom of expression and action. Many colleges reflect the special castes and communal groups. Some have a religious origin and some are the result of Christian missions. The mission-founded schools and colleges are popular among the elite, largely because they have kept English as the medium of instruction.

Unco-ordinated Institutions

One hundred and seventy-two junior colleges have been started by Andhra State. And many junior colleges comprising the first two classes of a five-year degree course have been established in Kerala. In Maharashtra and other states, junior colleges for the training of primary teachers have been established and these along with the polytechnics for training of technicians and Industrial

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[8] *REC*, pp. 26-27.

[9] *University Development in India—Basic Facts and Figures*, p. 23. UGC, 1973.

Training Institutions for the training of craftsmen have been isolated with Government Board for examinations and not integrated with a comprehensive system of higher education.

Agricultural universities and five IIT's are unrelated to the UGC. Fourteen rural institutes were started as higher institutions of education in 1956 in order to create a system of higher education relevant to rural life and have their council within the Ministry of Education and unconnected with the UGC. The expectations regarding the founding of these had been belied and they constitute the backwaters of higher education. There are nine institutions deemed to be universities which are specialised higher education institutions established for pre-independence national goals or inspired by individual ideas. Then there are numerous schools claiming a special purpose or tradition ranging from the Gandhian principle of basic education to those specially established as public schools for the sons and daughters of the now-defunct Rajas and Maharajas.

Chaotic Growth

In sheer numbers the system is the largest one in the world barring perhaps that of China about which correct latest figures are not available. In 1985,[10] the total number in the system is expected to be 17 crores (170 million) as against 10 crores (100 million) today. The reasons for this chaotic growth are mainly (a) the population explosion, (b) declared commitments to achieve universal education and the allocation of increasing but inadequate resources to this end, (c) the aspirations of individuals for more education for upward social mobility and individual opportunity, (d) political and social difficulties in controlling the numbers against proclaimed policies of equality of opportunity, and (e) lack of co-ordination.

States's Inability to Maintain Institutions

With the economic planning and provision of inadequate resources for education the burden of committed or recurring expenditure on education for the states has become unbearably heavy. Thus universal education though supported in theory by the state policies becomes difficult to realise as both economic problems and an elitist heritage conspire against it.

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[10] *REC*, p. 100 (Table 5.5).

Gandhian Concept Discarded

Though the Gandhian concept of basic education has been discredited, there is a view that it is this type of education that is needed to make the schools of India serve the people and economy around them. But for a proclaimed policy of equality of opportunity and egalitarianism, it has not been found to be socially or politically feasible.

Large Numbers Demand Structural Cohesion

There is a preoccupation with numbers to be enrolled as opposed to considerations of improved quality and relating education planning to manpower requirements. The statistical picture in terms of comparative education in other countries is misleading. This is because the per-capita costs, and institutional, political, cultural and historical backgrounds are different. In many respects India is unique. For the last quarter of a century educational development in the plans has been represented by numerical targets and not in terms of objectives of economic growth. It is difficult to restrict the numbers for political and social reasons and the upward thrust of the policy of compulsory, free and universal education at the elementary stage. Therefore a systems analysis and structural cohesion might suggest remedies.

Factors of Influence

Some of the factors which influence Indian education today are:

Revolution of Expectations

1. Aspiration of the people to go up the ladder of social stratification through the instrument of higher education is an important

cause of large numbers. It is unmindful of the problem of the educated unemployed or standard of teaching and examinations. It is a flood of people racing for whatever small social gains they may obtain through a process of certification in the higher education system. The pressure of operation for more education means the opening of more colleges with inadequate preparation and finances. Since Independence, there has been a tenfold increase in students entering colleges of arts, science and commerce.[11]

Gap Between Numbers and Resources

2. Forty per cent of India's population is 15 years of age and younger and the rate of child mortality is declining. So larger numbers invade the smaller resources and physical facilities for primary and secondary schools and the problem is worse for higher education.

Language Difficulties

3. The language problem and changes in the medium of instruction are such that any avowed solution would only create more problems. English is on the way out in education except as a language of international and post-graduate scholarship or 'library language' of colleges and universities. The trend is towards regional languages in higher education. Good materials in regional languages at all levels are lacking. The work of the Ministry of Education to encourage writing of high level books in Indian languages as well as the work of the Central Institute of Indian Languages in Mysore are commendable, but it will take a number of decades to have the actual results by which time more than ten times the number of books will be published in the English language. This would imply that English has to be taught in a much better way in schools and colleges. Language has to be understood as a tool of learning and scholarship and better the tool, better the process of learning. There should be no fear that better use of English will come in the way of development of Indian languages. On the contrary, because

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[11] UGC *Annual Reports* 1957 to 1972.

Indian languages during the last hundred years have developed with the assistance of English thought and lexicon, Indian languages would develop better with good knowledge of English.

Lack of Co-ordination

4. When in the pre-Independence period the system was to produce officials and manpower for lower civil service, many were needed to run the railways, the Posts & Telegraphs, the accounts and audit departments, the district government and other elements of the administrative system. Economic development means development of industry, agriculture, mines, chemicals, fertilisers, roads, communication, electronics, etc. These changes require different types of manpower and the educational change has resulted in the establishment of agricultural universities, technological institutions, management training programmes, industrial training schools, apprenticeship programmes and unsuccessful programmes of developing multi-purpose higher secondary schools and junior technical schools. These attempts have not been co-ordinated into a system. In a sense the result is isolated attempts to stretch and improve unsuccessful experiments. Responsibilities are too diversified for a systematic analysis of education and training programmes.

At a time when both government and private industry require an increasing diversity of specialists for a variety of vocations, both educationists and uncommitted politicians talk about reorientation of schools and colleges with an occupational emphasis. This could be described as pressure to vocationalise education in a narrow sense. But there is also the counter-pressure of the desire to raise social status which means avoiding children shunting into vocational schools leading to low level occupation, because the children of the elite monopolise the ladder to white-collar careers. Thus details of what to do and how to do remain elusive. It is obvious that on account of traditional methods of teaching and research in colleges and universities, the results hardly cover the real and practical needs of the country.[12]

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[12] For further elucidation see Section on "Fallacy of Vocationalization" in Chapter "Structural Change".

Unrealistic Plans

5. There have been some critical comments on the problems of higher education and extensive recommendations for change right from the Sargent Report of 1944 to the Education Commission Report of 1966, but the disturbing aspect of all these efforts is that they have produced hardly much change in the tradition-bound system over the last 30 years as piecemeal reforms do not help. The Education Commission Report of 1966 is an example of academic planning without consequences. By advocating further expansion and demand for more unavailable finance, it resulted in little action.

Educational planning at the state and central levels often means lack of suitable planning machinery, a tendency to generalise and create an unrealistic planning picture, shortage of experienced and trained personnel and mainly lack of requisite funds. Educational planning in the Central Ministry and the state governments has suffered because it had only thought of arithmetical calculations and projections and hardly ever suggested alternatives.[13]

World View

Sir Eric Ashby's *The Structure of Higher Education: A World View*, 1972[14] has indicated that the problems of higher education are similar in many ways all over the world today.

Three aspects of higher education have emerged in the 70's nearly in all countries. First, the explosion of discontent. It was felt in the sixties with the questions raised by students in their rebellion against conventions of the system of higher education and its irrelevance. The point raised was—is it a system? If it called for radical reform, what was the course of action to be chalked out and who should initiate the reform? Second, in any course of action what should be the resources in men and money. Third, there has been greater intervention by government in the field of higher education today which is inevitable but has to be within reasonable limits. Universities and colleges in the nineteenth century were fairly autonomous associations but with the rising prices, inflation of students and scarcity of finance it was necessary for society and the state governments to intervene and try to set things right whenever they went wrong. And they were wrong far too often both in central and state universities. In Banaras and Aligarh, the visitor's nominees had to be appointed as members of the executive council and the normal law of the universities had to be set aside by Presidential ordinance. Similar events have taken place in quite a few state universities and they have started having unified acts for all universities in the states.[15] This creates a certain dualism because the objectives of the academic society and those of the state or the public may not be identical. A conflict between political motives and academic aspirations was inevitable.

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[13] For Example See *Education in the Fifth Five Year Plan*, 1974-79, Ministry of Education & Social Welfare, New Delhi, 1972.

[14] Also published as occasional paper No. 6 by the International Council for Educational Development, New York, 1972.

Perspective for 1980

Perspectives of higher education have been drawn in different countries and we have a shape of things to come, e.g., in the year A.D. 2000. The shape of the future of American higher education has been described in *Campus* 1980[16] edited by Alvin C. Eurich and a staff of the Academy for Educational Development.

This collection of essays envisages the position of universities in 1980 in order to consider what the American society will or should soon become in relation to the future shape of higher education. Eminent university men like John Gardner, David Riesman, Clark Kerr, Logan Wilson, Nevitt Stanford, William Birenbaum and 11 others explore the future. The year 1980 was selected in 1968 to have a vision of perspective planning for the next 12 years. Goals and motives of people have been defined but as we are nearing the year 1980, a number of ideas contained in the different approaches and different aspects of the problem appear to be more distant. For indeed, the exploding demands on colleges and universities, and the national need for training and research, and many social and economic problems of growth are reflected in the universities which could not be foreseen earlier. The campus today is virtually looked upon as a focal point for economic growth—scientific, technological, industrial, agricultural and social.

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[15] The Acts for M. P. Universities, 1972-73 and Maharashtra Universities 1974 are illustrations.

[16] *Campus* 1980, Ed. Alvin C. Eurich, Delacorte Press, New York, 1968.

Modern Trends

During the last decade the Indian states have more or less deviated from the conventional thinking of educational development reflected in the earlier government reports which had been authoritative guides for years. This has upset the apple cart even of the report of the Education Commission of 1964-66. Thus social and technological changes make earlier recommendations out of date or inapplicable almost within a decade. The following trends could be mentioned:

1. Analysis of the subject in terms of the economics of education by considering the inputs and the outputs as seen in a number of recent studies discussed earlier in the chapter on 'Economics of Education'.

2. Relating educational development to social change which is basic to the onslaught of discontented students revolting against the present system of education as its curriculum is out of date, teaching methods are outworn or subject matter is irrelevant.

3. The question of autonomy of universities is being reconsidered in relation to the question whether the transitional aspects in higher education are due to the passing phase of lack of autonomy of the universities or the implicit reorganization of education as a system. The modern trend is that to the extent universities find themselves economically weak and dependent on government to that extent the invasion of the universities' autonomy by the government machinery is inevitable. If the universities want to have relevance and juxtaposition with society, they have to grapple with governmental and social constraints. Some of these ideas have been discussed in Perkins' two books: *Higher Education: From Autonomy to Systems*[17] and *The University as an Organization*.[18]

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[17] Perkins, J. A. (Ed.), *Higher Education from Autonomy to Systems*. International Council for Educational Development, New York, 1972.

[18] Perkins, J. A. (Ed.), *The University as an Organization*, A Report for The Carnegie Commission on Higher Education, McGraw Hill, 1973

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Conflicting Forces

How to strike a balance between the conflicting forces and what should be the future directions of development are problems of immediate concern. In the study of the Carnegie Commission, *University as an Organization* (1973), Perkins has tried to analyse this problem stating that the university cannot divest itself of the mission of teaching, research and service to society. It has also the mission of creating an ideal democratic community. Despite all that has been written about the university in recent years, the nature and purpose of the organization remain related to the major mission of learning, teaching and research.

Governance of Universities

Perkins points out that understanding university as an institution rather than functioning organism which obviously are inseparable ideas, it may be desirable to keep aside from the discussion on university politics and governance of universities because that would lead to endless analysis of facts, hearsay, motives and aspirations of people. But the institution of the university which is changing needs to be understood and developed to suit these times. Democratic ideas of equality, representation and election will continue to exert their influence on the internal arrangements of the university and governments are bound to continue their deep interest in the university developments and press against non-democratic practices in the universities even if it meant sacrificing quality or obstructing the smooth passage of research scholars.

Future Changes

Perkins[19] points out the changes some of which are mentioned below, modified where necessary, indicating trends for future development.

1. Instruction will remain the central mission but student choice will increasingly outweigh faculty prescription.

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[19] *The University as an Organization*, Ed. James A. Perkins, *A Report for the Carnegie Commission on Higher Education*, 1973, p. 259.

2. Large-scale research may gradually shift to non-university institutions. (This really means independent research in national laboratories and similar organizations.) But this is a later development for India because the research departments of the universities have yet to develop to that stage where separate institutions run by foundations or autonomous boards within the university for research in science, technology and social sciences could be co-ordinated. The feeder institutions will have to be universities for such a change.

3. Residential campuses will give way to off-campus living systems. Non-residential institutions such as community/junior colleges will have a comparative cost advantage which will become increasingly attractive.

4. Service to the public will decline dramatically in some areas such as defence and space; continue with minor modifications in agriculture, medicine and engineering; and may substantially increase in urban affairs, ecology, race or class relations, and international organizations, both public and private.

5. The democratic impulse will dominate systems of governance leading to representation, election, and consensus rather than appointment and decision-making by highest independent legal authority.

6. The locus of power to plan and allocate resources will continue to gravitate toward the managers of systems and from private to quasi-public and public co-ordinating bodies.

How to Systematize

To project directions for organizational and structural changes is a complex problem. We have seen that neither the Education Commission nor the earlier reports on education have examined the problem of higher numbers as related to a system of university education, concerned with structural changes in order to keep a certain amount of control over organization and co-ordination and to provide flow of information to help further research and formation of policies.

The suggestions we have made of establishing community/junior colleges to be affiliated to the universities after the 10th class and not to open any more degree colleges for a period of five to ten years as well as provision of open universities, seem to be an important alternative in organizational changes. The following results may accrue:

1. The governing bodies of colleges as well as the executive councils of universities are today influenced by the government on the one hand and university structure on the other. They really do not serve as direct agents of society. If the universities served society directly they could work within the framework of their autonomy suggesting changes in the constitution to the government when work-flow was impeded because of the restrictions in the Act of the university. With the responsibility of the 11th and 12th classes as part of the university system and the intermediate examination of the university as a lower degree giving instrument they will come out of their isolation from the people and will be more responsive to society. From the point of view of systems analysis, institutions will become less powerful and society will have greater say in all matters. Government would play the part of an instrument to further progress and development of the universities.

2. As a result of the reorganization the university system will change automatically and come out of a set pattern which has been working for the last 118 years. It could experiment with new patterns like the board of regents or trustees or a board of governors with many councils, committees and subcommittees of the academics to help them. This means bringing pressure on the government to modify the present acts in response to new educational and social demands. At the same time it can have discussions in conferences and committees where representatives of the past graduates of the university, representatives of the present students, and of the faculty and the academic heads could be included. Universities will thus be more representative of varied interests of society and the weak internal structure of the universities will be strengthened.

3. It is necessary in the interest of establishing universities on a democratic principle that the Vice-Chancellor is an elected officer of the university elected by the joint body of the senate and the academic council. This was the suggestion of the Kothari

Committee[20] as the best method of appointing the Vice-Chancellor. Since the Vice-Chancellor has to work through the various consultative bodies he will increasingly find it difficult to initiate his own plan and he has tactfully to carry out his desire through informal discussions with members who propose his ideas as their own ideas. He will be less visible and more of a management man.

4. The administrative office of the university will assume greater importance because ultimately the financial and administrative accountability is the norm by which the university will be judged. If the principle of democracy is extended some of the officers of administration would also be elected like pro-Vice-Chancellors, Rectors and even some of the other senior administrators. This will appear as a radical suggestion in a bureaucratic tradition where promotions to higher positions are always through seniority and sometimes merit which in the process is often ignored.

5. With the additional work of the pre-degree classes of the intermediate level and the affiliated community/junior colleges the administrative work of the university would increase considerably and in order to establish smooth flow of work in the office responsible heads will have to be appointed for different divisions and co-ordinated at the apex. But a big university does not mean large office staff at the lower level; it means responsible officers who are able to take the initiative and take decisions at different levels in order to assist the Vice-Chancellor who himself is the head organization officer. This will establish the desirable trend towards multi-versity.[21]

6. The mediaeval concept that the university is a community of scholars will be replaced by university as a community of professional interests. The teachers naturally have more ties with professional peers and national and international professional associations. There is not much give-and-take between professional men of different subjects except in areas of interdisciplinary co-operation. But organizational difficulties will be reflected in the

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[20] *Report of the Committee on 'Model Act for Universities'* (Kothari Committee), Ministry of Education, 1964, p. 13.

[21] See Introduction, Chapter I.

discussion of professional men of different types resulting in solutions.

7. Thus the university will become a new organization, a multi-versity, based on national realities, increase in the number of students, increase in budgets, and demands for relevance. Technology will provide possibilities for development of new structures and strategies. Education will increasingly be communicated to the student at home or at work. Class room instruction will occupy less time and examinations and degrees will relate more to performance than to class attendance.

8. The concept of open university and industry-based education will gradually evolve. Educational technology with the use of TV and radio is likely to dominate teaching methods and this is in brief a forecast of the new things to come in the university campus.[22]

Need for Central Co-ordination

After 1955 there were a number of obstacles in the way of implementing the recommendations of the Radhakrishnan Commission (1949) and of the Secondary Education Commission (1953). Some states found no educational advantage in converting high schools into higher secondary schools and they turned out to be right according to the evaluation of the Education Commission Report (1966). Others found that *status quo* was best as the Radhakrishnan Commission and the Mudaliar Commission had made contradictory recommendations and they also turned out to be right. In 1966 the Education Commission criticised the higher secondary pattern of 11 years and pointed out its shortcomings. Most of the policies and programmes suggested on the recommendations of the numerous committees and commissions appointed by the Government of India from time to time since Independence remained unimplemented for one reason or another.[23] The picture described above is still prevalent.

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[22] See *The University as an Organization,* Edited James Perkins, *op. cit.*, pp. 259-60.

[23] See also *Report of the Committee on Emotional Integration*, 1962, para 4.7, pp. 33-4.

The role of the Central Government in the field of education needs to be redefined and if they had carried out two important functions over the last 25 years, things might have been different. The first is the role of fact finding, information gathering and research. This has had to be executed through the Bureau of Education. This function was neglected from 1955 to 1974.

The second function of the Central Ministry of Education is to advise the central and state governments on various problems of educational development in the country and for this purpose the machinery of CABE created in 1921 on the recommendation of the Sadler Commission (1919) appears to be appropriate if it was handled properly by encouraging its standing committees to function and by making the state governments responsible for carrying out the agreed points of advice. The best performance of CABE was from 1935 to 1947[24] when the Central Department of Education (later Ministry of Education) functioned as the secretariat of CABE and brought out the most significant document, the *Sargent Report* of 1944 and many consequential studies. This means a good deal of co-ordination and follow-up. This has not been the position since 1950 to 1974.[25]

Many questions may be asked as to how the Central Ministry of Education which has the machinery for carrying out these two functions did not use the machinery. Secondly, how it was that plans were prepared over the last 20 years, without the necessary information required for quality improvement and suitable investments in programmes of educational reform.

The reasons are not far to seek. First, the Ministry works on the Presidential order regarding allocation of business for different ministries and in an area which is essentially a state subject the order includes "educational research and CABE, publication information, statistics"[26] but not as prominently as they should be. The allocation of business for the Education Ministry includes several other subjects. It also includes topics like pre-primary education, elementary education, basic education, secondary education, university education, etc., all of which really mean nothing else but co-ordination of information in these sectors and advising the state governments and other institutions regarding new programmes against necessary financial allocations provided in the plan.

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[24] See Silver Jubilee Publication of the CABE for resolution of the period.

[25] This will be evident if analysis of the recommendations of the CABE and their implementation is done from 1950-1974.

[26] Order Notification dated May 3, 1971, Document No. (D 213/71), Cabinet Secretariat, Government of India, New Delhi.

The work of the Education Ministry is not really executive or administrative except in such a department as Archives, the National Museum, the National Library, Calcutta, or the Archaeological Department and dealing with UNESCO and other international bodies. The major work is of co-ordination and advice which is lost sight of in the other business of the Ministry. When in 1944 the Department of Education, Health and Lands was trifurcated into separate departments, which became Ministries of Education, of Health and of Agriculture in 1947, the intention was that these Ministries whose subjects were constitutionally not central should help the states with centrally co-ordinated advice based on sound information collected by their several organs. If this function is lost sight of, central organization loses control over the subject and many problems are created in co-ordination as well as policy-making. The basic principle of systems analysis is full co-ordination, control, information and analytical studies. Regular publication of primary data would help interpretative studies and suggestions from economists, sociologists, scientists and professional men to assist the Central Advisory Board of Education for preparing progressive programmes.

Articulation and the System

An important problem in any system of education is articulation of educational units. The present organization of education in India as developed over a hundred years in different ways has been mostly based on the British system with a few American ideas thrown in after 1950, like examination reform and the semester system, autonomous colleges, Indian Institutes of Technology, founded after the pattern of the M.I.T., teacher training programmes, summer institutes, etc. But since 1921, when education became a transferred subject to the states with an Indian Minister of Education, 'education' started on the one hand expanding with great rapidity and on the other was starved of adequate funds. The anacronistic system of education has its origin in the antecedent development. Even now there is a great deal of accommodation to historical expediency and imported and inapplicable ideas.

One result of such an amorphous scene is that we have not been able to decide what we want. The one man who really had the vision of the goals of Indian education was Gandhiji. But his main thesis that in a poor country like India there should be self-supporting education was never accepted by the educationists even after Independence. During the first two plans 1951-1961, we talked about basic education but paid it only lip service. The result has been that the desire to provide mass education at the primary and secondary levels with a strong political motivation for the purpose was only controlled by financial starvation at all levels. Higher education developed as a result of the expansion of secondary education which in its turn grew strongly on the foundation of elementary education that was declared to be compulsory and universal in nearly all states. The percentages of enrolment, population of the corresponding age-groups, 1973-74 are as follows:

Class	Percentage 1973-74 (target)	Enrolment 1973-74 (in crores)
Classes I to V (age-group 6 to 11)	90	6.85
Classes VI to VIII (age-group 12 to 14)	45	1.81
Classes IX to XI (age-group 15 to 17)	25	0.96
University Education (general)	4.4	*0.40 (inclusive of pre-degree courses)
Total		10.2 crores

Source: *Draft Fifth Five Year Plan*, 1974-79, Part II, p. 8.
**Report of Ministry of Education* 1973-74, p. 12.

The educational units are not necessarily based on any logic. The primary, secondary and tertiary sectors are more a matter of expediency and historical growth and they are based on dissimilar philosophical positions and geographic areas. In 1947 when we became independent, primary education in many states consisted of 4 to 6 classes, and middle school education was not uniform. But there was one saving grace that the standard at the matriculation examination which qualified students to take employment under government or in the private sector or seek admission to university courses was fairly uniform in all states, whether it was achieved after 10 years or 11 years of schooling. States like Punjab, U.P. and Bengal and the princely states of Rajasthan, U.P. and M.P. had a 10-year school system. The other states like Bihar, Madras (including Andhra and Karnataka), Bombay (i.e. Maharashtra and Gujarat), old M.P. had an 11-year school system leading to the same type of matriculation examination.[27] Somehow on the English pattern, primary schools were separated from the high schools including the middle schools so that the counting of the classes was started again at the middle school level. In the old Bombay Presidency, for example, the primary schools were classes 1 to 4 and the high school classes including the middle school after the primary stage were 1 to 7, in a total span of 11 years. These classes underwent a gradual change after 1955 in nearly all states. But on account of the recommendation of the Sargent Report (1944), Delhi State followed the higher secondary pattern of 11 years which included the first class of the 4-year degree course. This only accounted for a small fraction of the total number of secondary school students. By and large though Delhi was different from other states, there was uniformity of practice at the higher education level. In every state and for every university there was the matriculation examination which was very often conducted by the universities in some states and by a Government Board of Secondary Education in other states. This was followed by 2-year intermediate course (in arts, science and commerce) at the end of which the examination was conducted by the universities. A 2-year degree course both honours and pass in the universities followed the intermediate course. There were exceptional experiments done by Punjab and Madras universities where a 3-year honours degree course was introduced but was later modified in Madras.

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[27] *REC*, pp. 24-28.

Before 1950, the universities played an important role in the organization of education at the higher level and had a fairly close relationship with secondary schools and a uniformity of standards. Where they conducted the matriculation examination, the schools were to be recognised by the universities in relation to certain standards prescribed for such schools. There was a binary control of government and the universities on the schools which prepared students for the matriculation examination. The government gave maintenance grants to the schools and inspected them through the Inspectorate and the universities recognised them in relation to the standards for teaching students for the matriculation examination.[28]

It is difficult to say whether there were merits in this system at this stage because the things have changed over the last 25 years in an amorphous or chaotic manner. For example, the Punjab University which conducted its matriculation examination not only in the Punjab but in different parts of India and also in foreign countries used to have an income from the examination of Rs. 40 to 50 lakhs a year, with the result that the university had a fairly sound financial position. Punjab was one of the last states after Independence to establish a Board of Secondary Education as a government agency to examine students at the final stage (10th class) of secondary education. Madras did the same and some of the state governments agreed to compensate the universities for the loss of their income when matriculation examination was taken over by the government through the autonomous boards. The autonomous examination boards of secondary education did not grow through the demand of the associations of the schools but were created by the government through legislation on the oft-repeated argument that the school final examination was not a university matter. Such an argument was accepted without much debate. For all practical purposes all the boards of secondary education in the country are government agencies with government officers and government machinery to organize the work.

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[28] Dongerkery, S. R., *A History of the University of Bombay* 1857-1957, pp. 171-178. *Higher Education in South India University of Madras* 1857-1957, Vol. I, pp. 94-95.

All the boards are making money out of the examination fees. Another argument advanced was instead of one university in the state which conducted the matriculation examination, there were 5 or 6 universities and the examination could not be decentralized among them. The government could have thought of the examination as a source of income. In actual practice the grants to the universities were made on the usual basis of deficits and control of expenditure. Besides there has been the Central Board of Higher Secondary Education at Delhi for Delhi and the Central Schools established in different states.

It may be difficult now to go back to the system of the school leaving examination being conducted by the universities. But we have indicated that the examination after 11th and 12th classes should be held by different universities to which the proposed community/junior colleges will be affiliated and these two classes will also be located in the existing degree colleges.

Co-ordination as a Step Towards Systems

In a vast federation of India where education is essentially a state subject, an organised and yet decentralized system has not been possible for over a century. This is, however, a normal thing to happen sociologically as well as culturally. Caryl Haskins in his book *Of Societies and Men* has scientifically analysed and provided a useful model for the study of organisms and organisations.[29] This is recognised when growth takes the form of welter of institutions and government tries to co-ordinate policy-making in relation to the economic capabilities of the state. A certain level of growth is necessary to feel the need of co-ordination on account of unmanageability and this would lead to complexities and complexity to specialization. Specialised problems in different fields have a tendency to be integrated and this results in development of the system which is based on co-ordination, co-operation and responsiveness to the scientific method of systems analysis.

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[29] Also mentioned in Perkins, J. A. (Editor) and Barbara Baird Israel (Associate editor), *Higher Education: From Autonomy to Systems*, International Council for Educational Development, New York, 1972, p. 4.

In a systems analysis, co-ordination reveals defects in organisational pattern and wastages in financial provisions. Growing reliance on public funds which are not available cracks the organization.

Secondly, it is only now we have realised that we do not have adequate information from all the states as to the various experiments and innovations whether it is about curriculum reform, examination system, or lack of equipment and library facilities. There have not been enough basic studies.[30] The following suggestions are offered in this connection:

1. The Ministry of Education, from the point of view of systems analysis, must emphasise its functions of co-ordination and integration and of tendering advice to the state governments, through the agency of CABE.
2. We have in the chapter, UGC & Central Responsibility, indicated that a Ministry of Higher Education, in which the present UGC should merge (or alternately the UGC could be converted into a Ministry) be established at the centre incorporating all sectors of Higher Education, including Scientific, Engineering and Technological, Medical and Agricultural, in co-ordination and co-operation with the respective Ministries. The relations between the present Ministry, which should be in charge of the CABE and co-ordination at the apex level could be organized in a streamlined pattern.
3. In order to tender advice, the Ministry must be equipped not only with statistics but also with specialised factual and well documented studies either done by officers or by commissioning of such studies through the departments of economics, sociology, statistics and education of selected universities.
4. The Central Advisory Board should then take up these studies and formulate policies for planning future development keeping in view the economic and social needs of the country and the capacity of the nation to spend on any sophisticated procedures.
5. There should be a critical concern for establishing a

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[30] CABE, Standing Committee Proceedings, 1973, p. 74.

balance between needs of financing, planning and co-ordination on the one hand and the need for autonomy and freedom to innovate and internal flexibility among the institutions on the other. This is a most complex problem but the Central Advisory Board must establish this balance and sort out complex problems through specialised studies. The studies of the Carnegie Commission on Higher Education, U.S.A., might serve as models.

6. Planning is a continuous process and it seeks its main support from the Central Bureau of Education for flow of information and specialised studies. The needs for education and training have to be identified and provisions made in relation to economic necessities and financial capacities.

7. The organizational patterns which are meant to be bridges for state-central relationship must have visible co-ordinating formations. All India bodies must form an interdependent texture of an organized whole, for example, the All India Council of Technical Education, the All India Council of Medical Education, the Bar Council, the Indian Council of Agricultural Research, and any other body should be integrated and co-ordinated by some organization like the Central Advisory Board of Education and the Ministry of Higher Education.

CHAPTER VI

STRUCTURAL CHANGES AND ARTICULATION

Reform in Structure Feasible

The various remedies suggested by the Education Commission for controlling numbers and also for provision of additional finance have not been effective over the last ten years. The National Policy of Education, 1967, stated, "the reconstruction of education on the lines indicated above will need additional outlay. The aim should be gradually to increase investment in education so as to reach the level of expenditure of 6 per cent of the national income as early as possible."[1] This was no doubt a desirable aim; however, it has not been possible to provide the required funds during the last ten years and the same difficulties will persist in the foreseeable future.

Three important problems in higher education are finance, numbers and structure. A developing country cannot provide all the necessary requirements of finance, and even developed countries like the U.K., the U.S.A. and Japan are finding it difficult to secure adequate finances for higher education.[2] We have therefore to assume that finances can never be satisfactorily provided for higher education in India and all institutions will have to struggle hard against this even if economic development both in industry and agriculture takes big strides during the next 20 years.

The second problem of numbers cannot now be considered from the point of view of controlling them by selective admissions.[3]

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[1] *REC*, NCERT Edition, 1971, p. XXI.

[2] See *Higher Education in Nine Countries*, Ed. Barbara B. Burn, Carnegie Commission Report; also *Higher Education: from Autonomy to Systems*, Editor James A. Perkins, *op. cit.*

Changes in structure and working out a system which will admit additional numbers are however possible. Future development with efficiency and economy within the financial capacity of the nation would be perhaps the objective of planning.

Wrong Value Applied to Structure

In any organizational structure, a system of articulation from top to bottom is necessary for the purpose of efficiency and effective output. Thus the units in which the system is divided or from which it is assembled must have a relationship of graduation and co-ordination in order to make the structure move towards the purposeful point of a goal. Once a structure is well systematised, the "interacting parts produce their own indicators as to whether the interaction is going on well or badly."[4]

An instance of the acceptance of traditional conventions is seen in the discussion of "Educational System: Structure and Standards", in Chapter 2 of the Report of the Education Commission (REC).

Four important elements have been stated by the Commission as basic to any system:

(1) The structure or the division of the educational pyramid into different levels or stages and their inter-relationships.

(2) Duration or total period covered by different stages.

(3) The extent and quality of essential inputs such as teachers, curricula, methods of teaching and evaluation, equipment and buildings, and

(4) The utilization of available facilities.[5]

The Commission then give values to these by stating that the structure is of the least importance and the duration or total period of education is not so important unless available facilities are utilized to the full. This is the most significant of all elements, the argument being that it is essential to improve efficiency at the level of existing inputs and to add more inputs if they are crucial to the process.[6]

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[3] See Chapter IV—'Economics of Education'.

[4] Coombs, *op. cit.*, p. v.

[5] *REC*, p. 23.

The indispensable features of any system however, are (a) relationship of things and (b) stress on innovation, i.e., change not for its own sake but change calculated to achieve broad improvements and adjustments toward national welfare. Structure and duration would appear to be of significance in relation to these features.

Structure Necessary for Relationships in a System

Structure by itself does not exist. It evolves as an inevitable element of a rational system and it cannot be isolated without eliminating other values with which it is tied up.

In fact, system and structure are necessary aids to improving efficiency. It is difficult to judge what is meant by utilization of available facilities. The implication is comparison with the plant in industry or a factory where utilization of full capacity of production has not been made. In educational institutions, this analogy is not applicable because utilization of available facilities depends among other things on organizational pattern. Full utilization may mean introduction of modern technology of teaching within the ceiling of financial provision or the annual budget which is mostly meagre in nearly all institutions. It may mean intensive utilization of available space by double shifts; lengthening of school hours; use of teacher aids, like para-professional helpers; use of teaching machines and language laboratories; or increased expenditure on libraries and text-books.

In this connection the observation of Harold Howe II,[7] Programme Adviser in Education to the Ford Foundation, New Delhi, is relevant. Since the publishers of the document indicate that the material is not for quotation, its main import is stated below.

System and Change

He points out that the 'education system' of India has only a few of the attributes of what we usually mean by the word

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[6] *REC*, p. 23.

[7] Howe, Harold, II, *Indian Education in the* 1970's, The Ford Foundation, New Delhi, 1970.

'system'. In a system, change can be introduced on an orderly basis by using inter-locking relationships to produce the desired results. Often a 'system' has the characteristics of being rather completely planned both to establish relationships and to produce results. In India the past history and current status of institutions of education at all levels give them only a cloudy resemblance to being systematic. The sources of decision-making, planning, and control for India's schools and colleges are found in a loose series of interrelationships among several Ministries at the centre and in departments in the states. Besides education in India has its local, state and national politics, which infuses into the loose system both life and controversy.

At present it is not easy, therefore, to introduce change through the top of the system (the Ministry of Education) and produce results in schools and colleges unless the organization is changed. And since the system is a loose one at best, the UGC and other agencies will have little effect without strong co-operation from the Ministries of Health, Agriculture, Law and Labour and state agencies and specific institutions.

Half-hearted Approach

The Education Commission having made a statement that structure may be regarded as the "skeleton of the educational system", being of little significance, later discuss the need for structure and even mention the three channels of education (viz., full-time instruction, part-time education and private study or own-time education) and clarity of nomenclature, which should be uniform.[8] This contradictory and half-hearted approach to the problem has created confusion among the states and the universities.

The Commission quotes western authorities in support of a systematic approach to structure and systems analysis. However, structure proposed by the Commission has been based on authorities, i.e., the Sadler Commission (1919)[9] whose recommendations have not worked for the last 50 years.

[8] *REC*, Chapter II.

[9] Sadler Commission, *op. cit.*, 1919.

The Education Commission mentions[10] Machlup's study on the *Production and Distribution of Knowledge in the United States* (The Princeton University Press, 1962), saying that the learning process in schools in the United States could and ought to be accelerated. Machlup advocates that the educational objectives now attained in 12 years of schooling in the U.S.A. could be achieved in 9 or 10 years. This means a saving every year of tens of billions of dollars. Besides, it will save the precious time of students and teachers. This time-saving is becoming necessarily important, as there is so much to learn in a fast expanding world of knowledge and the time is short. Besides it saves money for a developing country. Therefore compression of the school course would help in the development of satisfactory working habits and powers of concentration and application. Machlup says "nothing is to be cut out; on the contrary, more is to be put into the curriculum but the students have to get a faster start and a continuous stretch of their minds." In spite of the above, the Education Commission arrives at a 12-year school system for India in the tradition of the Sadler Commission.

The Education Commission further quotes another authority, Jerome B. Weisner, former Science Adviser to the U.S. President, from *Daedalus*, 1965, page 534. Weisner says:

"Many people are impressed by the fact that the Soviet Union's ten-year cycle of primary and secondary education requires that all students must take five years of physics, six years of mathematics, three years of biology, and four years of chemistry, with the course content of the work during the last two years being comparable to that of the usual introductory courses in these subjects offered in our liberal arts colleges. By contrast, our corresponding school period contains twelve rather than ten years but provides on the average only one-fifth as much training in mathematics and the sciences. There is insufficient evidence to show that the intensity of early Soviet scientific training is either necessary or desirable, particularly if it involves sacrifices of some emphasis on the humanities, but it is evident that the standard programme in our schools is far from optimum."[11]

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[10] *REC*, p. 24.

[11] Quoted in *REC*, p. 24.

This is only to point out that there is nothing wrong in the 10-year school cycle for the Indian system and no arguments have been advanced by the Education Commission to make it a 12-year system of the US type instead of the 10-year system of the USSR type. Predisposed to traditions they have not been able to develop logically the modern ideas of Machlup and Weisner.

Confusion of Structures—Historical Background

The problem of structure in education has been complicated in India partly because of the inconsistent decisions we have taken since independence without uniformity in all the states.

Sargent Report

The trouble started really after 1944 when the *Sargent Report* was published. It recommended the higher secondary pattern of 11 years, transferring one year of the intermediate two years of the university course to the school system. This was a curious compromise between the recommendation of the Sadler Commission and its non-feasibility. The Sargent Report said, "the anomalous position of the intermediate stage in Indian higher education has often been criticised. While most universities provide a two-year intermediate course of studies followed by an examination at the end of the stage, the students of the intermediate classes are not recognised as under-graduates.[12] In some places also there are intermediate colleges which have no direct connection with universities at all but are controlled by boards of their own.[13] The two-year degree course which normally follows the intermediate offers inadequate scope or time for giving a sound and complete training in the subjects which the students select for

[12] This is not a factual statement in relation to the position of universities and colleges in 1944, when all universities and colleges in India, except in U.P., recognised the intermediate students as under-graduates, preparing further for the 2 year Pass or Honours degree course which was sequential to the intermediate stage.

[13] This was true only of U.P. & nowhere else. Intermediate colleges in other parts of the country were affiliated to universities.

specializations.[14] The intermediate course of studies does not mark any definite stage in education[15] and has for all practical purposes amounted to no more than an extension of the high school without any of the practical advantages which might be expected to accrue if it actually formed a part of the high school. The Sadler Commission rightly recommended the abolition of the stage and the addition of one year to the high school course and the other to the university. This may be regarded as an essential and urgent reform."[16]

Actually the Sadler Commission had recommended not abolition but transfer of the 2 intermediate classes to the Intermediate Board as happened in the U.P. from 1923.[17] But it was not accepted by the Calcutta University for which the recommendations were made. It was also not accepted by the Madras and Bombay universities. It did not happen in any other part of India for 50 years. The universities and the academics did not favour the recommendation on social, economic and academic grounds.[18] Therefore, it is clear that the Sargent Report was trying to make a compromise for the 14-year system that was at that time current in the north, of 10 + 2 + 2 into 11 + 3 for which there were not enough reasons advanced nor much justification. There could be both academic and structural justification for the intermediate course as a buffer between the high school stage and the university stage and therefore the Sadler Commission had made it clear that there should be a 3-year degree course of the British pattern after the intermediate stage when degree education began. But the Sadler Commission was thinking of the British system and standards to be made applicable to an economically depressed country like India. Therefore, their recommendations were not workable. The VI form in the British system where a student spent 2 or 3 years to qualify at the advanced level was comparable with the Intermediate Course of Indian universities. Even the U.P., while accepting the transfer of the Intermediate classes to the Board, did not introduce the 3-year degree course because of the cost involved. And that did not raise the school standards. But there was perhaps more justification for the Sadler Commission's recommendation than for the Sargent Report's.

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[14] The splitting of 2 + 2 into 1 + 3 made no difference, later either to the content or the standards. The U.P. universities & Bombay University did not show lower standards inspite of the pattern 2 + 2. If Union Public Service Commission Examinations are any indication of undergraduate achievement, Lucknow and Allahabad have done better in competitive examinations, than some of the universities that have followed a 1 + 3 pattern, including Banaras and Aligarh for the last 25 years.

[15] This statement is not supported by any evidence and universities found it difficult to accept the recommendation.

[16] *Sargent Report*, 1944, pp. 24-25, Third Edition.

[17] *Sadler Commission Report*, 1919, Selected Chapters, pp. 156-157.

[18] See—For detailed account Bombay, Madras & Calcutta Universities Centenary Volumes, 1958.

However, there was a point of economy and the Central Advisory Board of Education in 1944 (Sargent Report) thought that it was no use recommending a 15-year pattern of 10 + 2 + 3 and incurring a larger expenditure by addition of one year, both for parents and for the government. The recommended higher secondary education pattern was introduced only in Delhi against opposition particularly from the principals of colleges who in 1944 did not favour the reform and justified the intermediate course.[19] The central government spent money lavishly in Delhi on the establishment of higher secondary schools by adding one year from the colleges to the school system and making the 3-year higher secondary course of classes 9, 10 and 11, abolishing the intermediate examination and introducing a 3-year degree course. This created further problems for students seeking admission to professional courses in Medicine and Engineering for whom a course of Pre-Engineering/Medicine of the first year of the 3-year degree pattern was introduced equivalent to the intermediate examination. It did not change the curriculum very much because it meant the same structure and the one year that was taught better in the colleges, began to be taught in the schools where linking up of the additional year with the last two years of the 10-year school system was difficult for successful adjustment. In the beginning there were not enough good teachers for the 11th class in Delhi nor much equipment for the laboratories or libraries. This was made up by the central government in a period of 10 years spending large sums of money on buildings, laboratories and teachers' salaries. It was not possible for the states to spend such amounts on a much larger number of students.

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[19] The information on this is available in the files of Education Ministry (Department), now in the National Archives, New Delhi.

Radhakrishnan Commission Report (1949)

The Radhakrishnan Commission noted the anomalous position of the recommendation of the *Sargent Report* and once more they went back to the recommendations of the Sadler Commission's Report suggesting a pattern of 10 + 2 + 3, but they emphasised the Intermediate Colleges. The Central Government in Delhi by this time felt that the higher secondary pattern had entrenched itself in the education system of Delhi which should not be disturbed. The appointment of the Secondary Education Commission in 1952 which justified the Sargent Report pattern partly explains the point.

Secondary Education Commission Report (1953)

While the Radhakrishnan Commission had arrived at a reasonable formula of recognising the strength of intermediate years, the Secondary Education Commission disturbed the whole structural system to defend the Delhi pattern by going back to the Sargent recommendation but they did not find it an easy task. They committed factual inconsistencies. There is, for example, a contradiction in the statement at page 16 and that at page 31 of the Report. At page 16 while referring to the recommendations of the Radhakrishnan Commission, they said, "the Commission recommended that the standard of admission to university course should correspond to that of the present intermediate examination, i.e., after 12 years of study at school and intermediate college. The Commission thought it unfortunate that neither the public nor the government had realised *the importance of intermediate colleges in the Indian education system* and remarked that 'our secondary education remains the weakest link in our education machinery and needs reform'."[20]

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[20] *Report of the Secondary Education Commission*, New Delhi, 1953, p. 16, see also p. 31.

While making a recommendation regarding the new pattern, however, they misrepresented the above recommendation of the Radhakrishnan Commission probably to rationalize the Delhi system introduced by the Sargent Report, and said "we have therefore come to the conclusion—which also tallies with the view of the University Education Commission in this connection—(which actually did not) that it is desirable to abolish the present intermediate stage, to increase the period of secondary education by one year, and to plan a 3-year degree course at the university stage."[21] This was not correct because both the Sadler Commission and the Radhakrishnan Commission had emphasized the importance of intermediate courses as a buffer between schools and the university.

In order to cover up the system of 11 years of higher secondary schooling, the Secondary Education Commission had further difficulties. The new organizational structure recommended by them was as follows: (1) 4 or 5 years of Primary or Junior Basic education, (2) Middle or Junior Secondary or Senior Basic stage covering a period of 3 years, (3) a higher secondary stage which would cover a period of 4 years.[22]

This created a further confusion whether they wanted to make the school system of 11 years or 12 years or whether they wanted it to be 11 years of higher secondary school in the north and 12 years of higher secondary school system in the south,[23] where the 10-year school course of the north took 11 years. Actually, however, the state governments did not accept the formula.

Committee on Emotional Integration (1962)

This confusion was recognised by the Committee on Emotional Integration (the Sampurnananda Committee)[24] in 1962 in their most valuable report which was neglected by the Ministry of Education and other educationists partly because it did not suit the current pattern of higher secondary education in Delhi. The arguments of the Sampurnananda Committee were to make the pattern flexible but the structure uniform in all states. They said, "We consider that in the overall interests of our student population to whom education, apart from its training for citizenship, is also a means to gainful employment there should be a common pattern of education in the country which will minimise the present confusion and co-ordinate and maintain standards. The need for a common pattern of education does not, however, imply a uniform sameness in the syllabus for schools all over the country. Variations within a broadly accepted framework would naturally occur and much would depend on the teacher and on his interpretation of the syllabus. We would only point out that for emotional integration, it is necessary that similar opportunities for education should be made available in all parts of the country."[25]

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[21] *Ibid.*, p. 31. The contradiction of statements at pp. 16 & 31 is apparent.

[22] *Ibid.*, p. 31. (In Delhi however the higher secondary stage, even to-day, covers 3 years after the 8th class.)

[23] For a graphic picture of the pattern of education (1965-66) in the states & union territories see REC, pp. 26-27.

[24] *Report of the Committee on Emotional Integration*, Ministry of Education, New Delhi 1962, (*Sampurnananda Committee*).

After pointing out how multi-purpose schools and the one-year pre-degree classes were a failure, the Committee made the following recommendations.

"As a high school stage at the end of 10 years is a necessity and as 12 years of education before degree course is equally a necessity, we feel that a 2-year higher secondary or a 2-year pre-university stage is essential. This 2-year unit may be attached to high schools where it can be called the higher secondary classes or it may be attached to degree college as pre-university classes. *It can also be an independent unit and may be called Junior College.* Such junior colleges can be controlled and recognised by the state education department or the university or both. Students who successfully complete the higher secondary, pre-university and junior college courses may be awarded a diploma to qualify them for different avenues of employment available to them."[26]

The Sampurnananda Committee arrived at the modern concept of more options and flexibility in structure. However, it is felt that since a 10-year school[27] is successful in the USSR and it has also been successful in India over a century, we should not disturb it and add the responsibility of 2 additional years to the school system. With this modification to the Sampurnananda Committee recommendation, it is suggested that the two classes should continue in the existing colleges and also be established separately in the community/junior colleges, for the increasing numbers with many vocational courses.

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[25] *Ibid.*, p. 36.
[26] *Ibid.*, p. 40.

Historically there are a few facts which are relevant here and may be mentioned. In 1962 All India Secondary Teachers Federation held a seminar on secondary education and also recommended a provision of a 2-year intermediate stage for general and technical education. The Vice-Chancellors' conference in October 1962[28] recommended a 15-year span of school and degree education (10 + 2 + 3) instead of the 14 years which was supported by the State Education Ministers conference in 1963 and the Panel on Education of the Planning Commission[29] in 1960 had said, "that the 11-year course of school education had been accepted as an ill-considered compromise."[30] This was a comment on the Sargent Report and the Secondary Education Commission Report. But the Education Ministry and the Delhi Administration had been entrenched into the 11-year higher secondary system.[31]

Confusing Consequences

The historical need for structural changes centres on the fact that before independence when enrolments in educational institutions were very much smaller and today's population figure of 55 crores (550 million) could not be visualised as a major demographical and economic problem—the educational structure was not such an important problem.[32]

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[27] The 10 year school in the north is equivalent to the 11 year school in the south which we have recommended to be split into (1 + 10), representing a pre-primary class plus a 10 year pattern uniform in all states.

[28] *Report of the Vice-Chancellors' Conference*, 1963, Ministry of Education.

[29] Planning Commission, Mimeo. Minutes, 1960.

[30] *Ibid.*

[31] Source—Material available in the article by K. L. Joshi in Journal, *General Education Quarterly*, October 1965—'The Need for Junior Colleges in India' of the Bombay University. Also in a mimeographed article by Shri K. L. Joshi and Y. D. Sharma for the UGC, 1965.

With rising numbers, after 1955 many changes took place in the structure, some of which had an unfortunate consequence of creating confusion in co-ordination. In the old educational structure there was always a drop in enrolment after the matriculation examination, for quite a large number of qualified students entered different sectors of employment. Another drop occurred after the intermediate examination when strict standards resulted in a pass percentage hardly exceeding 40 to 50.

A number of select students who qualified entered professional colleges and the remaining sought admission to colleges of arts, science and commerce. Equivalence of standards was recognised by Indian Universities though courses of instruction varied from university to university and the enrolments were manageable.

The sudden change to higher secondary pattern beginning in 1955 on account of the recommendations of the Secondary Education Commission in some of the states that partially adopted the pattern because of the availability of central funds and later regretted (e.g. the Punjab, West Bengal, Old M.P. and New M.P.) resulted in many adjustments in the educational structure. In a number of states, the former 4-year course of under-graduate education, 2 years of intermediate education and 2 years of degree education was changed into a 1 + 3 pattern — 1 year pre-degree course followed by the 3-year degree course. The first year was to be transferred to the higher secondary schools of 11 years in a 10-year structure. But that did not happen except in M.P.

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[32] See the author's article 'Junior Colleges Proposed in India' in *International Development of the Junior College Idea*, Editor Roger Yarrington, American Association of Junior Colleges, Washington 1970, pp. 101-119; See also 'The Need for Junior Colleges in India' by K. L. Joshi, article in *General Education Quarterly*, Vol. III, No. 1, October 1965, University of Bombay. The idea was earlier suggested by the author in his publication. *Notes on University Education*, Popular Book Depot, Bombay, 1944.

However, the total duration in school and college remained 14[33] years. In other states where the higher secondary pattern was not practicable and a 3-year degree course was introduced, the school system was retained to 10 years or in some states 11 years (which was equivalent to 10 years from the point of view of courses of study) followed by a pre-university course (PUC) or pre-degree course (PD) in arts, science and commerce. Universities in the U.P. State and Bombay University, however, kept up their old pattern. The argument of Bombay University critically discussed in their academic council, was that to abolish intermediate examination as a preparation for later studies was academically unsound. Bombay University later broke up the intermediate course of 2 years into 1 + 1 holding a university examination after each year in order to satisfy the demand of admission of students to the Indian Institutes of Technology, after the PUC or PD course in science equivalent to the first year of the two-year intermediate course. The confusion was created by having a 5-year degree course in engineering institutes after the higher secondary school stage in place of 4 years after intermediate affecting the structures of universities.

Education Commission (1966)

This confusion was no doubt recognised by the Education Commission (1964-66) but it suggested the Sadler Commission pattern of 10 + 2 upto the intermediate standard followed by 3-year degree courses. However, the Sadler Commission was in favour of an intermediate stage which the Education Commission had not correctly evaluated. It recommended a 15-year duration of school and first degree education contrasted with the 16 years in the U.S.A. and Japan. The idea of a 3-year degree course was based on the U.K. tradition. The Education Commission have not given any solid arguments for transferring the 2 years from colleges to schools. What they recommended was counter to the view of the universities and colleges and their teachers. Moreover, it was not consistent with the extracts from Machlup and

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[33] 11 years matriculation course in some states is being equated to 10 years matriculation of other states in this discussion.

Weisner quoted by the Education Commission at page 24, suggesting that the USA could, like the USSR, compress the secondary education course of 12 years into 10 years.

When it came to implementation of the Education Commission's recommendation, the state governments with the implicit approval of the Central Ministry of Education considered the pattern, and they felt that the 11th and 12th classes should be either in the colleges or in the select secondary schools according to the situation. For instance, the white paper on education in Maharashtra State* reads, "higher secondary education will be provided as classes attached to colleges and also as top classes in secondary schools". But the unfortunate idea was to take away the intermediate examination (which includes the PUC or PD exam. and the first year exam. of the 3-year degree course) from the universities and pass it on to a government established Board of Higher Secondary Examination. Logically if this is accepted, government could even establish Boards for conducting the B.A., B.Sc., B.Com. examinations and even for post-graduate degrees which is unacademic and absurd. A line has to be drawn only at the stage of the 10-year school system which may be the responsibility of the government.

Further modification of the recommendation of the Education Commission is also seen in the report of the committee of the Members of Parliament on Education 1967,[34] which said: "as a transitional measure the attachment of these classes (11th and 12th) to colleges may be continued where necessary". However, the Ministry of Education later seems to have come to a final conclusion. What is known as the national policy on education (1968)[35] stated: "it will be advantageous to have broadly uniform educational structure in all parts of the country. The ultimate objective should be to adopt the 10 + 2 + 3 pattern, the higher secondary stage of two years being located in schools, colleges or both according to local conditions."

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* The Maharashtra Government in Jan. 1975 have announced the policy of establishing Junior Colleges for 11th & 12th classes. However they have yet to consider the step of affiliating the Jr. Colleges to Universities in the state and integrating them with the Polytechnics, Industrial Training Institutes and Junior Training Colleges.

[34] Government of India, *Report of the Committee of Members of Parliament on Education*, New Delhi: Ministry of Education, 1967.

[35] Government of India, *National Policy on Education*, Official Report, New Delhi, Ministry of Education, 1968.

Suggestions for Clearance of Confusion

To clarify this confusion we suggest:

1. that the school should be reorganized as a 10-year institution of the USSR pattern, uniformly in all states.[36]
2. that this should be followed by a 2-year institution, community or junior colleges, as separate institutions incorporating other institutions of the same level in existence today along with a large number of vocational courses of different durations and varieties;
3. that the 2 classes can also continue in the existing degree colleges; and
4. that the universities should be made responsible to hold the examination at the end of 2 years both for community/junior colleges and the existing colleges, giving a degree of AA (Associate of Arts or of Applied Sciences) and the junior colleges should be affiliated to the regional universities.[37]

This apparent additional burden on the universities will be accepted by them as their function, moving towards the multiversity concept.[38] They have the machinery both for teaching and examinations and have been using it for a century. The number of universities could be increased appropriately and it would not be wrong to visualize about 150 universities to accommodate nearly 60 lakhs (6 million) of students at the end of the next 10 years, the cost of which will not be heavier than that for normal development and the income to the universities through the 'AA' degree examinations will be quite substantial.

The greater gain is clearance of the confusion in structure, all over India and the fixation of responsibility for post-high school education, general, technical, vocational, professional and semi-professional and further education on the universities proper.

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[36] For detailed contents of courses see Chapter VII.

[37] See Chapter VIII.

[38] See Chapter I, Introduction.

We may spell out these points as follows:

1. All schooling, though not education, may terminate with a certificate from the State Board of School Education at the end of the 10th class. Merit scholarships should be made available to students on conditions laid down for the purpose. It is possible to organize also a national examination through a separate organization for national scholarships at this stage. In states where there is a system of 11 classes leading to the level of 10 classes of other states, they should be reorganized into 1 + 10, where the 'one' should be a pre-primary class for the age group 5-6. This will mean instituting the desirable change without reduction of staff and with least disturbance.

2. The main reason, however, that the school system should structurally end at class 10 is because of the failure of experiments of adding one class from the intermediate course of universities and turning it into higher secondary system. The Education Commission have given a reasoned analysis of the failure of the Higher Secondary Education pattern of this type.[39]

"(1) Specialization which should not be introduced till after class X or the age of 16 begins too early in the pattern (after class VIII or at the age of 13 or 14).

(2) The three-year integrated course in higher secondary classes leads to a good deal of unnecessary expansion and an increase in expenditure, as a child who might otherwise have stepped off into the world of work or a vocational course at the end of class V is now forced to go upto the class XI.

(3) The expectations that standards would improve as a result of the reorganization have not been generally realised. Qualified teachers are unwilling to work in higher secondary classes because of lower salaries and even where the salaries are equal, because of lower status. Moreover, for reasons other than educational, a number of high schools have been upgraded to the higher secondary pattern without any appreciable improvements in their accommodation and equipment or the qualifications of their staff.

(4) The experiment which is costly in itself had led in certain areas to an increase in expenditure in other directions. For instance, it was found almost impossible in practice to downgrade

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[39] *REC*, pp. 25-8.

an intermediate college to higher secondary school so that every intermediate college had to be raised to the costlier degree level."

Here, again, while analysing the failure of the higher secondary system, the Education Commission have not seen that the same reasons will hold good for the failure of the proposed system when 2 years are added to the school instead of one year from the four-year college. The system may not mean early specialization but will certainly be a very costlier experiment and will involve unnecessary expansion of the school system. Where they cannot manage the 10 year schools efficiently how could they take the additional burden of the 12 years schools? It will also create management problems and good teachers will not be available for the 11th and 12th classes even if the salaries are about the same as those of lecturers in the colleges because they will always desire to have the higher status of a college teacher.

The only experiment which should have been evaluated by the Education Commission is the way in which intermediate colleges or 12 years school system of U.P. over the last half a century with an intermediate school board has failed or succeeded in achieving the objective for which they were created on the recommendation of the Sadler Commission. They have been earlier committees[40] which have evaluated the contents of courses in these schools but there has not been a criticism of the structure and the wastage of time in some of the school methods carried on upto the 12th class. Actually the criticism of the Education Commission of the 11-year system of schooling applies in large measure in respect of cost and teachers to the 12-year system proposed by them.

3. An important reason for not transferring the two classes to secondary sector is that the students at the age of 16 + would prefer to be in a collegiate atmosphere rather than that in a school, because of the tradition of intermediate courses being accepted as university courses and the need for exposing the students to methods of self-study and independence, against the authoritarian methods of the school. This has been proved by the experiment

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[40] For example—Sapru Committee of 1934 and Narendra Dev Committee 1939 but their recommendations have not examined the inefficacy of the structure from an all India point of view.

in the old M.P. (Nagpur area), where higher secondary schools were established along with the pre-university degree courses of one year in the colleges. A study done for the University of Nagpur indicated that the students who did the pre-degree course were better equipped for the 3-year degree course of the university than those who had done the higher secondary course. The main reason, for such a result was that students because of parental influence and pyschological reasons always preferred to go to the pre-degree classes (P.D. or P.U.C.). Secondly, the teachers and equipment in the P.D. or P.U.C. classes were always better than those obtained in the XI class of the Higher Secondary School. Thirdly, teachers who taught higher classes in a college also taught in P.D. or P.U.C. classes and had a richer knowledge of the subject content than the school teachers. Besides the system created further difficulties of inequality of opportunity for rural and urban students and establishment of sub-standard higher secondary schools.

4. However, this experiment of converting high schools into higher secondary schools from the years 1953 to 1966 had failed along with the effort to establish multi-purpose and junior technical schools and there was a lot of evidence before the Education Commission which remained unanalysed because it would have been a separate document and they summed up the failure in the four reasons given earlier. But the Education Commission obviously was of the view that different systems could continue in India and did not agree with the view of the Sampurnananda Committee on Emotional Integration (1962) about a common pattern of education in the country which would minimise confusion and co-ordinate and maintain standards.[41] They realised that this view was the majority view in the evidence but the Education Commission was prepossessed with the idea that there should be greater co-ordination of education standards and uniformity of pattern of school and college classes in all parts of the country was of secondary importance.[42] What they had quoted from Machlup and Weisner earlier and what was taken by the Carnegie

[41] *Sampurnananda Committee*, p. 36.

[42] *REC*, p. 28.

Commission later in the U.S.A.[43] was not analysed by them more deeply.

5. This matter, was further debated in the parliamentary committee which considered the educational policy and there was also a difference of view. But ultimately they came to the compromise formula which said that the ultimate objective should be to adopt the 10 + 2 + 3 pattern, the higher secondary stage of 2 years being located in schools, colleges or both according to the local conditions.[44]

This recommendation, of course, tallies with that of the Sampurnananda Committee which had made the structure more flexible in order to accommodate different views.[45] They also stated "*junior colleges* will be specially useful in areas where high schools do not have facilities for providing higher secondary classes. Pupils from neighbouring high schools who want the 2-year preparation can join them and not have to go far from their homes to join the pre-university class or a degree college. Junior colleges can also serve the local community by providing evening continuation courses of different types and duration for cultural enrichment and professional improvement."[46]

6. After a student has secured the school leaving certificate he is qualified to attend a Community/Junior College or join the 4-year or 5-year degree course of a college or university.

At the school stage most of the subjects would be compulsory for all but a few options could be introduced in fine arts, crafts, languages, and others. A minimum mastery over language, numerology, science, and cultural subjects has to be achieved during the ages 6 to 16 + by every student. Some of them would qualify at the age of 17 or 18, if they have joined school late or if they have left school in between for a year or two or failed to be promoted. This is immaterial and for the next 10 years because of the large numbers and economic inability to maintain them, there should be less worry about wastage by dropouts or attrition rate. The main consideration for the state is to see that anyone who drops out of the school system is utilised by the economy for citizenship, employment and production and for further training.

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[43] *Less Time, More Options*, Education Beyond High School. A special report and recommendation by the Carnegie Commission on Higher Education, McGraw-Hill, 1971.

[44] Reprint of REC by NCERT, New Delhi, 1971 (Edition), p. XXI, item, 17.

[45] *Report of the Committee on Emotional Integration*, *op. cit.*, p. 40, para 4.24.

[46] *Ibid.*, p. 41, para 4.28.

7. After the 10th class we have suggested the institute of Community/Junior college but it does not rule out the present 4- or 5-year degree college (2 + 2 or 2 + 2 + 1)[47] which the students can join if they so choose.

The estimated enrolment in class 10 for the year 1975-76 is about 40 lakhs (4 million).[48] If the results of the school leaving certificate examination are about 60 per cent on an average, about 24 lakhs (2.4 million) of students will qualify to get into the higher system of education of whom on the present trends nearly 50 per cent will ask for places. The figure could be very much more if the results become liberal and larger percentage of passes aspire to get into the system of higher education. This is a likely trend for 1980-1990, but we can only project the figures on the assumption of present trends for minimum estimates. The present accommodation in the college and university system for the year 1974-75 if projected would find places for about 8 to 10 lakhs (about a million) of students in the pre-degree classes of colleges. But to avoid overcrowding it could be 8 lakhs. These colleges could continue as they are and there should be accommodation for 4 lakhs of additional students in the proposed Community/Junior Colleges and no new degree colleges should be established for the next 10 years. The projection of new colleges at the present rate for the years 1975-76—1980-81 would be about 350 to 400[49] per year and would involve a capital expenditure of Rs. 20 crores (200 million) and a recurring expenditure of Rs. 16 crores per annum.[50]

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[47] Two classes of intermediate level or junior colleges plus two of the general degree course plus one of the honours course.

[48] *REC*, p. 100.

[49] UGC Report, 1971-72, p. 50. The number of additional colleges in 1971-72 was 292; this could be projected to 350 to 400 for 1972-73 & 1973-74.

This amount should be invested in creating the Community/Junior Colleges and the structure of the 4- or 5- (2 + 2 + 1) year degree colleges should be strengthened allowing students to have the option to go to the degree colleges or the community colleges.[51]

8. Moreover, to make the programme practicable and economical, the present institutions which are doing similar work in semi-professional disciplines could be converted into model Community/Junior Colleges affiliated to universities. These are mainly three. (1) Polytechnics, (2) Junior Teachers Colleges for training primary teachers (often known as normal schools or training schools) and the (3) Industrial Training Institutes (ITIs) as well as training schools for agriculture, nursing, etc., at the certificate or diploma level. The examinations for these are held by a state government agency, generally called a Board, which in the Indian mind does not have the status of a university.

The community college offers not only academic training for students who will join degree colleges but also provides terminal courses of a vocational type and improvisation of any other types of courses for the community by any training programme. The suggestion is to bring all such institutions under the umbrella of universities by affiliation and the examination will be conducted by them.

(1) *Polytechnics*

In 1973 there were 307 polytechnics with a capacity to admit about 50,000 students annually.[52] This means an average intake of about 170 students per institute per year. However, the position in 1974 was that a large number of polytechnics had hardly 40 per cent of the capacity of the institutes and some even less. These are really vocational institutes illustrative of vocationalization of education. These are no longer popular among the better type of students, who prefer to be admitted primarily to commerce courses, science and even arts courses in the degree colleges, if they do not secure admission to engineering or medical colleges or agricultural universities.

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[50] Based on the methods employed in Planning Commission. The figures are only illustrative and not precise.

[51] See also figures which are projected on the basis of the basic *Facts and Figures,* UGC Publication, 1968-69.

[52] *Draft Fifth Five Year Plan,* 1973, p. 203.

It is proposed that these polytechnics should be converted into Junior Community Colleges and they could admit students for all types of courses including those in humanities and science and commerce with necessary adjustments and additions to the plant of the institutions. Each of these institutions should have the capacity for about 1000 students and more not only for the courses in technology but for all types of courses to be provided in a community college. Thus the 307 polytechnics will accommodate nearly 3 lakh students and even more if further capital outlays are made with necessary adjustments. This would mean full utilization of the buildings from 7.00 a.m. to 9.00 p.m. with all types of courses, morning, daytime and evening, as well as part-time and own-time.

An important point is that at present the polytechnics have a 3-year diploma course mostly in mechanical, electrical and civil branches of engineering at the technician level but in many respects they claim to be an abridgment of the university degree courses. These courses may continue but a better course would be to compress them into a duration of 2 years with necessary adjustments to bring them on level with the academic courses of 2 years in arts, science and disciplines of various types. The principle for doing this is based on *Less Time More Options*—Carnegie Commission Report (1971). The second reason for the compression of these courses into 2 years is that a great deal of practical training can be given on the job itself and students should not be oriented in practical exercises of a boring type as would make them unfit for the world of work in industry or on the farm where the incentive to work and learn is greater. They could participate in all types of orientation courses and workshops later. It may appear that this may not be a progressive step to get back to the old traditional diploma of two years' duration, but there will be strong grounds for abridging the course with elimination of repetitive elements and boring chores and with modernization of contents in relation to the needs of the market. It would save a lot of money for parents, students and the government.

(2) *Junior Teachers Training Colleges*

The junior teachers colleges for training primary teachers have had a long tradition in all the states for more than 50 years. Formerly the course of training in many of these training colleges was for 3 years for students who had done the middle school programme and were known as 'normal training colleges'. This was modified to 2 years and the admission qualification was raised to matriculation or school leaving certificate. Some universities also conduct a diploma course for primary and middle school teachers of one-year duration after the intermediate level or its equivalent. All such courses are really part of post-school system of higher education and should not be conducted by any government agency but by the universities. The students must feel that they are a part of the university system which will enhance their prestige and they will not feel isolated.[53] They should be able to mix with students doing other courses of study and not regard their option as inferior to the option of their fellow-students.

At present there are about 1600[54] institutions of this type, which should be converted into Junior/Community Colleges by strengthening the plant and the institutions and adding all types of courses including the training of teachers for the pre-primary and middle school level. Many of the institutions are run by government and there are a number run by private bodies with government grants. When they are affiliated to the neighbouring university they will become big community colleges for all types of courses of training and study.

[53] See also REC, p. 68 on "Removing the Isolation of Teachers Education" and on "Breaking the isolation from the universities". The REC had analysed the problems already but came to conclude a different organizational set-up from the one proposed above. Their point is to improve the present set-up. It is suggested it be revolutionized.

[54] *Education in Fifth Five Year Plan*, 1974-79, Ministry of Education, Government of India, 1972, p. 24.

The 1600 institutions turn out 1.5 lakh teachers per year today. These should be expanded ultimately to accommodate 8 lakhs of students on an average of 500 per institution with additional capital expenditure to make each of them a community college over a period of the next five to ten years.

(3) *Industrial Training Institutions*

Thirdly the Industrial Training Institutes (ITIs) of which there were 356 in 1966[55] with a total capacity for 1,13,000 students. These institutions admit students after the 7th or 8th class for some trades but the majority of the applicants are matriculates. (There are 39 trades for which class 7th has been prescribed and 12 trades for which matriculation qualification (class 10) is required.)[56] There are Junior Technical Schools (JTS) numbering to 103 in 1966 with an intake capacity of 18000 under the departments of education (technical wing) as against the ITI's which are under the Ministry of Labour with 60 per cent assistance from the Centre and 40 per cent assistance from the states. The JTS's have hardly been a successful experiment as is evident from a factual survey of Junior technical schools done in 1964 by a committee of the Planning Commission.[57] Their finding was that the best of students or even average students were not attracted to the junior technical schools and the goal set out in the Second Five Year Plan when these were established had hardly been fulfilled. The goal was to enable the students to enter an occupation at the end of the secondary course as semi-skilled workers or for setting up small businesses of their own. Instead they wanted to have access to a regular degree college, engineering college or the polytechnic. The Central Ministry of Education scheme was "to divert boys of 14 from the academic type of education in secondary school to one which is specially designed to condition them for different productive occupations of a technical nature while continuing their formal general education."[58]

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[55] *REC*, p. 371.

[56] *Ibid.*, p. 371.

[57] *Factual Survey of Junior Technical Schools*, Planning Commission, 1964.

The argument against such a scheme was it was too early to decide at the age of 13 or 14 that the students should opt for technical courses. There should be general education programmes upto the age of 16 in 10 classes with certain options provided in a scholastic programme, but this suggestion is also modified by the Education Commission in the ambiguous statement that they could be diverted to vocational courses at different stages.[59] The other argument was that early specialization of this type not only created a different class of students but they regarded themselves as inferior to others during the other normal channels of schooling at a very sensitive period of their lives. Besides, most of them are hardly able to think out for themselves whether the courses they are doing were of their own choice for future careers. These courses can be provided in the Junior Community Colleges having a socially accepted status.

Besides the above there are today technical, commercial and agricultural schools and multi-purpose schools which are not so popular. There are also technical high schools in some states mostly in Maharashtra and Gujarat and private and government trade schools mentioned by the Education Commission,[60] all of which can be brought in a multi-purpose junior college and the courses can be framed of such duration for different types of trades as would be desired by the employer and the expert teachers mostly available from the industry as part-time teachers. The courses could be of a duration of 6 months, 1 year, 1½ years or 2 years according to the need. When these are converted into junior college programmes where admission qualification would generally be matriculation or school leaving certificate but lower qualification could be prescribed for certain courses, assuming some age limit of admissions of not less than 15 or 16 is prescribed, they all could come under one umbrella and all of them can get the A. A. degree (Associate of Arts of Applied

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[58] Chapter 23, para 22, *Second Five Year Plan*, Planning Commission, 1956. The assumption that students could be diverted in this way is debatable and socially and educationally dubious.

[59] *REC*, p. 370.

[60] *Ibid.*, p. 371.

Sciences), if they have fulfilled the conditions prescribed by the university for the purpose. The university can also prescribe a shorter course known as a certificate course for training in some of the trades and occupations. But no course shall be a blind alley; there can be a juxtaposition of these courses in such manner that the isolation of the institutes today for the different types of courses is completely eliminated and all of them could participate in a university programme of education and training according to their aptitudes in one institution affiliated to the university and all such studies will have articulation for further studies.

The phasing of the proposed development over the years will take some time, and in doing that a process of adjustments will follow. The existing facilities should be exploited fully first and at the same time a few outstanding Community/Junior Colleges could be established. With the proposed arrangement of existing colleges, conversion of some institutes and establishment of a few Community/Junior Colleges it should be feasible to take care of larger numbers with a cost that would be comparable with what would be required in starting 350-400 more colleges every year.

We have discussed above the efficacy of instituting Junior/Community Colleges mainly to deal with the problem of numbers.[61] It can be statistically proved that by eliminating the intermediate examination in Delhi and M.P. State, the problem of numbers has been aggravated because one step or stage for 'stop out' of students who do not make the grade for higher education has been removed. Secondly, students cannot be diverted to vocational education unless they judge for themselves that they have more aptitude for vocational training than for training in science and humanities or social sciences. Thirdly, we cannot, both on political and social grounds, close the doors of the university to anyone who is anxious to pursue a course of study, if qualified, for higher education. The demands of the market influence the choice of most of the students and their parents and the trend is to opt for general education when those who are trained in vocations face unemployment. To a large extent the institution of Community/Junior Colleges will mitigate the difficulties created by the large number in the present colleges.[62]

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[61] See also Chapter VIII on 'The Need for Community/Junior Colleges in India'.

However, this one device may not be enough. We, therefore, suggest another device particularly for those who are anxious to pursue higher education and yet need not attend the regular courses of studies. This can be achieved by the institute of "open university". This has been discussed in a separate chapter.

Systematic Organization of Scattered Post-School Institutions

The Education Commission have pointed out the present state in colleges and universities where uninterested students are forced to attend unexciting lectures of teachers who are not very often professional educationists.[63] The Commission say that the existing situation in higher education during an academic year alternates between slackness and strain—slackness during the session and strain at the time of examinations. "In many weaker colleges and universities the majority of teachers teach mechanically and listlessly."

The problems of higher education in India are varied because of the long tradition of Indian scholarship of several centuries along with the oral tradition of transmitting knowledge. There has been unusual respect for old, authoritative texts and less for critical analysis. Blind dogmatic faith, cramming texts and notes, indispensable for securing high scores in universities, would kill the creative talents of many. But this has been the accepted value of acquiring knowledge. A new awakening on account of the influence of science and technology has taken place over the last 20 years and the U.G.C. has encouraged university departments and research by grants which have raised the tone and prestige of university departments since 1955 for talented students at the post-graduate and research levels. And yet the student discontent, examination reform and politicization among teachers along with unemployment, large numbers, poor amenities in buildings, equipment, library and laboratory have created an atmos-

[62] See Chapter VIII.

[63] *REC*, p. 278.

phere of despair illustrated by many writers on higher education.[64]

Restructuring as a Remedy to Numbers and Costs

Our approach has been to recognise things as they are and modify the structure with as little disturbance as possible by creating a framework of an organized system. Unless the poverty of India is removed and work provided for every young man and woman, the question of higher standards in university education cannot be solved. But it is a satisfying thought that the best among the students, about 10 per cent of the total student population, are today comparable with some of the best in the leading universities of the world. Short-term remedies will not help. We have, therefore, suggested the restructuring of the institutions to include Community/Junior Colleges and "open university" discussed in Chapters VIII and IX.

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[64] Vide *Articles in the Higher Learning in India*, Ed. by Amrik Singh & Philip G. Altbach, Vikas, Delhi, 1974.

Also see articles, *Higher Education in India*, Ed. A. B. Shah, Lalvani, Bombay, 1967.

PART III

STRUCTURAL CHANGES AND REORGANIZATION

CHAPTER VII

STRUCTURAL CHANGES AND REORGANIZATION

We have pointed out in the earlier chapter that structure is of essence in any system. The following points are discussed in order to indicate that a well-structured system would find its own solutions to the problems through its organization and building inner forces of strength; and attacking the problems externally would tend to make matters worse and create further problems:

(1) Fallacy of Vocationalization
(2) Some Fundamentals
(3) British and Indian Systems: A Contrast
(4) Articulation—Need for Intermediate Level
(5) World View of Ashby
    (a) Balance of Forces
    (b) Application to India
(6) Different Modes of Education
(7) Internal and External Forces
(8) New Reforms
    (a) Examination Reform
    (b) Autonomous Colleges
(9) Conclusion—Educational Policy

1. *Fallacy of Vocationalization*

Vocationalization of secondary education is one of the main recommendations of the Education Commission. They said, "at the end of primary stage a proportion of students will step off the school system and enter working life (about 20 per cent); some more will step off the stream of general education into different vocational courses whose duration may range from 1 to

3 years (about 20 per cent) and the remaining will continue further in this stream of general education (about 60 per cent)."[1]

"At the end of 10 years of school education a proportion of the students will step off the school system and enter working life (about 40 per cent), some more will step off the stream of general education and enter vocational courses whose duration will be 1 to 3 years (about 30 per cent) and the remaining continue further in the stream of general education whose duration will be one, and ultimately two years (about 30 per cent)."[2]

It is obvious that the Commission's intention is that when 60 per cent of the students enter at the matriculation (10th class) level, 50 per cent of them will get into vocational education and the others opt for general education and out of these a small number will enter college or university. The Commission's thinking that at every stage there has to be vocationalization of courses is oversimplification of the problem and they have not mentioned the type of institutions, nor have they worked out the institutional programmes in details as well as the type of teachers, buildings, equipment required for the purpose and the financial provisions. The question how students would be motivated to join vocational courses and what vocation in actual life would absorb them has not been examined. The reports of the wastefulness of such an experiment in the African countries were not before the Commission, because analytical studies appeared later and the Commission could not visualize the implicit social and administrative failure of such a proposal. Foster has well exposed this in what he calls the 'Vocational School Fallacy in Development Planning'.[3]

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[1] The educational argument against this 'early vocationalization' is, it is difficult for children to decide what vocations they should choose. If this is meant to rationalize the normal drop out of 30 per cent to 40 per cent of children at the stage, it is much better to provide for them programme of training for work if that is financially feasible or to provide for them adult education programmes in community colleges, when they cross the age limit.

[2] *REC*, p. 30.

[3] Foster, P. J., 1965, 'Vocational School Fallacy in Development Planning' in *Economics of Education*, Editor, Mark Blaug, Vol. I, Penguin, 1968.

Failure in African Countries

Foster examined the debate of the reorganization at school level agricultural education in Africa. The role of agricultural science in the curricula of primary and secondary schools had been debated among African educators for almost 50 years.[4] Experts have argued again and again that African schools themselves are responsible for the exodus from rural areas to towns and for the emergence of urban unemployment among school leavers—problems which had already reached alarming proportions in West Africa and were beginning to be matters of concern in East and Central Africa.[5] Imitating the academic type of instruction of Europe and America, African education, it was alleged, generated unrealistic expectations of clerical employment, and a disdain for manual occupations. In consequence, it inhibited rather than promoted rural progress. This would appear to apply equally to Indian conditions for like Africans nearly 80 per cent of our population lives in rural areas and depends on agriculture. The argument was that the only way schooling could make a significant contribution to the economic development of Africa was by imparting an agricultural bias to the curriculum at all levels of the educational system followed by an expansion of junior agricultural colleges at the upper secondary level.[6]

Foster points out that proposals to increase the provision of agricultural and technical education in Ghana formed an essential element in every major document relating to education in the Gold Coast from as long ago as 1847 to the grant of independence in 1957.[7] "Nevertheless none of these proposals was ever fully implemented; whenever an attempt was made to implement them in some fashion or other, the experiment soon had to be abandoned. The question that immediately arises is: why, despite a century of effort by successive colonial governors and educational missions to establish agricultural schools and to devise agricultural curricula, do African schools continue to favour academic education along western lines?"[8]

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[4] *Ibid.*, pp. 396-399.

[5] Calaway, A., 'Unemployment among African School Leavers', *Journal of Modern African Studies*, Vol. I, No. 3, 1963.

[6] Balough, T., 1962, 'Misconceived Educational Programmes in Africa', *University Quarterly*, June 1962. Dumont, R., 1964, 'Agricultural Development and Education', in *Readings in the Economics of Education*, UNESCO, Paris, 1968.

[7] Foster, P. J., *op. cit.*, p. 399.

The main argument of Mark Blaug is that the emergence of urban unemployment among school leavers is due mainly to the fact that the academic type of instruction of Europe and America is followed in African countries which generates unrealistic expectations of clerical employment.[9] However, the remedy of providing more agricultural education is worse than the disease and this has been pointed out by Foster (1965) in his study *Education and Social Change in Ghana.* Foster describes it as 'Vocational School Fallacy in Development Planning'.[10] He said that the proposals for provision of technical and agricultural education in Ghana had to be abandoned.

The same thing would apply to Indian conditions if vocationalization is introduced at an earlier stage. It is true that there will be school leavers even in a 10-year school system at different stages of their education and at different ages. First, they may learn the trade of their fathers or seek employment in other occupations but in our proposed reconstruction of education they could be brought late to the community colleges and they could be provided with various types of vocational education and of various durations consistent with their aptitudes in the community colleges.

Second, the main fallacy of vocationalization is that very often practical education in many trades may become obsolete on account of the scientific and industrial changes in technology. Therefore the emphasis should be on fundamentals of training and general education which can be flexible enough to be bent to any occupation which the students would take in life adapting itself to technological changes. This will be provided for in the proposed community colleges.

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[8] Blaug, Mark, *An Introduction to Economics of Education*, Penguin, 1970, p. 244.

[9] Blaug, Mark, *ibid.*, p. 244.

[10] See *Economics of Education*, Penguin, 1969, Vol. I, Chapter 19.

Third, in our proposed reorganization everyone will not complete the 10-year school. At least for the next 10-20 years it will be economically impossible for the state to provide educational facilities for everyone who is a school leaver at the earlier stage. Our emphasis is on priority of work, and if he gets to work he could get further education later. The experience in the African countries, according to Blaug, was that "the graduates of the academic schools were always at an advantage compared with the graduates of vocational or vocational-oriented institutions. In the circumstances, the pressure for an academic type of education was nothing else than the familiar mechanism of demand and supply in the labour market transmitting an influence on private demand for education. African students, far from being irrational in insisting on bookish education, correctly appraised the actual job opportunities that were available; paradoxically enough, the teaching of the three 'R's' provided a 'vocational' education in the best sense of the word, allowing entry to the most prestigious and better paid occupations in the economy."[11]

Blaug has further commented on the confusion in the debate on rural education created by the conventional distinction between academic and vocational education, implying that most reports assume a patronizing air suggesting that academic education is for urban people and vocational for the rural. This would now be resented by the awakened masses in rural areas. He says, "this distinction, which is actually grounded in the nature of the two curricula, is allowed to carry the implication that some education prepares students for the 'world of work' and some does not."[12] He points out that actually those who do the academic courses reap substantial benefits in life even in vocational occupations where training is on the job. But general school training helps. The paradoxical conclusion is that *academic education has a greater vocational value than vocational education.*[13]

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[11] Blaug, *op. cit.*, p. 245.
[12] *Ibid.*, p. 247.
[13] *Ibid.*, p. 247.

2. *Some Fundamentals*

The Carnegie Commission on Higher Education worked from 1968 to 1974 in order to make recommendations regarding the vital issues in higher education in the United States. The major concerns of higher education for study and investigation were structure, function and governance; innovation and change; demand, resources, cost and expenditure; and efficiency in use of resources. Various research projects were then assigned by the Commission resulting in about 68 studies and 21 policy reports. A special report on *Less Time, More Options, Education Beyond the High School* was published by the Commission in 1971 which examines and makes recommendations regarding the general flow of students into and through the formal structure of the higher education in the U.S.A. and the key role played by degrees in this flow. They have stated that this topic is central to every aspect of higher education.

The main argument of the Report has been that beyond high school, educational organization should be such as would enable the students to do the courses in less time than it is at present scheduled. For, on account of modern methods of teaching and environmental changes there should be more effective options available to students to "stop out" from college. They also suggest a combination of study and service as an integral part of college experience, thus expanding choices within the higher education system. In this connection two studies sponsored by the Carnegie Commission are interesting. One is by Stephen H. Spurr entitled *Academic Degree Structures: Innovative Approaches* and the second is *Colleges of the Forgotten Americans* by E. Alden Dunham.

The major themes of the studies summarized in *Less Time, More Options* are as follows:

1. The length of time spent in undergraduate college education can be reduced roughly by one-fourth without sacrificing educational quality. (This may not apply to Indian conditions in all disciplines. But lengthy courses in applied sciences could be reviewed.)

2. Young people should also be given more options (*a*) in

lieu of formal college, (*b*) to defer college attendance, (*c*) to stop out from college in order to get service and work experience, and (*d*) to change directions while in college.

3. Opportunities for higher education and the degrees it affords should be available to persons throughout their life-time and not just immediately after high school.

4. There should be four generally accepted degree levels (now many institutions use only two, the B.A. and the Ph.D.) to reduce the drop-out rate and to create more points for re-assessment of his college career by the student and of the student by the campus. These four levels should be: A.A. (Associate of Arts or of Applied Sciences), after the completion of a course in community/junior college, B.A., M.Phil., and D.A. (or Ph.D.).

5. The emphasis on certification through formal higher education should be reduced. Certificates, where necessary, should be broad, rather than narrow, in their coverage; they now have too many highly specialized degrees—about 1600 in total (in the U.S.A.).

6. These reforms could result in a reduction of operating expenditures for higher education by 10 to 15 per cent a year below levels that would otherwise prevail by 1980, or $3 to $5 billion a year. Construction costs in the 1970's could be reduced by one-third, or a total for the decade of $5 billion.

7. More educational, and thus career opportunities should be available to all those who wish to study part-time or return to study later in life, particularly women and older persons.

8. Society would gain if work and study were mixed throughout a life-time, thus reducing the sense of sharply compartmentalized roles of isolated students *v.* workers and of youth *v.* isolated age. The sense of isolation would be reduced if more students were also workers and if more workers could also be students; if the ages mixed on the job and in the class-room in a more normally structured type of community; if all members of the community valued both study and work and had a better chance to understand the flow of life from youth to age, society would be more integrated across the lines that now separate stu-

dents and workers, youth and age.[14]

These fundamentals could be made applicable to Indian conditions in the proposed structural reorganization.

3. *British and Indian Systems—A Contrast*

In the Indian scene there is a good of change and modification while adopting the British system. England and Wales have a uniform pattern of school education, the main feature of which is known to be the public system of primary and secondary education. Children of the age group 5-15 have compulsory school but this projects upwards to a considerable extent to include children upto the age of 18 and beyond who are preparing for the various forms of higher education and downwards to include nursery schools for children aged 2 to 5. The universities are independent of government control though they receive substantial financial assistance from the state and the public or governmental organizations maintain technical colleges and colleges for training of teachers and educational facilities for the armed services. Besides there are private or independent schools and colleges, which supplement the state provision. The figures for 1960 were that there were about 70 lakhs (7 million) children in some 30,000 schools maintained or assisted out of public funds. About half a million children (5 lakhs) are in some 4400 independent schools, i.e., unaided private schools which include the public schools and small local institutions catering for a very large number of children charging such high fees as to make the institutions self-supporting.[15]

Today the school system in the U.K. is mainly governed by the Education Act of 1944 which provides for the legal recognition of the responsibility of the state to provide every child opportunity to develop its capacities and aptitudes to the full, that is morally, mentally, physically and spiritually, regardless of the means of the parents and their position in life. According to the Act, education for children in the U.K. is provided in 3 progressive stages, primary education in 6 classes for age-group 5 to 11 and secondary education in 6 classes upto 6th form in which the students spend normally 2 or 3 years after which they go to the universities or technical colleges or training colleges or evening institutions of further education or employment. There has been a great deal of criticism after publication of the Robbins Report on Higher Education about the binary system of government control of training colleges, polytechnics and colleges of further education on the one hand and the university-controlled departments of education and of technology on the other. However, this system to a large extent has influenced the Indian scene.

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[14] The Carnegie Commission on Higher Education, *Less Time, More Options, Education Beyond the High School*, A Special Report, McGraw Hill, Jan. 1971, pp. 1-2.

[15] *UNESCO World Survey of Education*, Vol. III, 1961. Also see Department of Education & Science Annual Reports, London, HMSO.

After independence some thinking has gone into the problem but we have not been able to get out of the hold of the British system and adapt a system that will train manpower and educate the people to attain our national goals.

The two important education commissions, 1882 (Hunter Commission) and 1919 (Sadler Commission) and the Sargent Report (1944) have played a significant and historical role in the influence of the British system. Gandhiji's idea of making education self-supporting and related to the actualities of life never became popular because the Sargent Report of 1944 pointed out that for effectively erecting a national system of education, "the expenditure involved is admittedly heavy but the experience of war suggests that when a paramount necessity can be established the money required to meet it can and will be found. It is for India to decide whether time has arrived when a national system of education is a paramount necessity.[16]

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[16] Sargent Report, 1944, p. 1. It is thirty years now since this was said and the same is being repeated by educationists and planners without much effect. To-day we do not know how to put priorities in the economy—Defence, Agriculture, Industry, Oil or Exports—Education & Social Welfare hardly seem to have a chance. But they are all interconnected and the circle is that industrial and agricultural development will increase national GNP, which in its turn will yield more finance for education to prepare required manpower for industry and agriculture.

4. *Articulation—Need for Intermediate Level*

In an articulated system of education at different levels there have to be divisions which have conventionally become primary, secondary and tertiary. They have relations with one another and yet are graded stages of attaining knowledge. The units comprise all types of training and education, liberal, vocational, professional, scientific, research and non-formal. They include institutions like polytechnics, junior training colleges for primary teachers, multi-purpose schools, evening institutions for adults and apprenticeship and in-service programmes. This intermediate level between the schools and the universities has to be recognised as a transitional stage in the mental development of the child and it has to be part of the university system moving towards the concept of multi-versity.

In the system of higher learning nothing that is training and education at the post-school level may be excluded. All these would form the system of education connected like the nerves in the human body. Government may make a distinction between autonomous research institutions or national laboratories and central universities. But they all belong to one system. This is yet to be recognised. Even autonomous units are connected with the system. To recognise this is to recognise why the system has to be balanced.

When the 10-year school is built up and modernized, as the USSR has done, with courses modified to suit our conditions but with emphasis on elementary knowledge of science and mathematics, the foundation will be strongly laid. This will be illustrated by the following chart regarding the Regular General Education School Curriculum Grade 1-10 in the USSR. (See page 165).

5. *World View of Ashby*

(a) *Balance of Forces*

The Structure of Higher Education: A World View, an address by Sir Eric Ashby (now Lord) at the second International Con-

Regular General Education School Curriculum (Grade 1-10)*
USSR

Subjects	Number of class hours per week								10-year complete secondary school	
	Primary school				Eight-year school					
	Grades				Grades				Grades	
	I	II	III	IV	V	VI	VII	VIII	IX	X
Russian Language	12	10	10	6	6	3	3	2	—	—
Literature	—	—	—	2	2	2	2	3	4	3
Mathematics	6	6	6	6	6	6	6	6	5	5
History	—	—	—	2	2	2	2	3	4	3
Social Science	—	—	—	—	—	—	—	—	—	2
Natural Science	—	2	2	2	—	—	—	—	—	—
Geography	—	—	—	—	2	3	2	2	2	—
Biology	—	—	—	—	2	2	2	2	2	2
Physics	—	—	—	—	—	2	2	3	4	5
Astronomy	—	—	—	—	—	—	—	—	—	1
Drawing	—	—	—	—	—	1	1	1	—	—
Foreign Language	—	—	—	—	4	3	3	2	2	2
Chemistry	—	—	—	—	—	—	2	2	3	3
Fine Arts	1	1	1	1	1	1	—	—	—	—
Singing and Music	1	1	1	1	1	1	1	—	—	—
Physical Training	2	2	2	2	2	2	2	2	2	2
Manual Training	2	2	2	2	2	2	2	2	2	2
Total Obligatory Courses	24	24	24	24	30	30	30	30	30	30
Elective Courses	—	—	—	—	—	—	2	4	6	6
Grand Total	24	24	24	24	30	30	32	34	36	36

* Adapted from 'Schooling 21st Century Leaders', by Mikhail Prokof-lev, USSR Minister of Education, in *Soviet Life*, January 1968.

ference on Higher Education held at the University of Lancaster in September 1972,[17] emphasises that all higher education systems are structured according to a balance of forces acting upon them, the internal forces of traditional educational values and objectives (their "inner logic and phyliogenetic inertia") and the external, environmental forces of "customer demand" (pressure of student numbers), "manpower needs" (the demand of intellectual labour market for graduates) and "patron's influence" (usually in modern conditions the patronage implies the ultimate financial control of the state). Ashby pleaded that provision and preservation within the inevitably more vocational higher educational systems of the future, of an autonomous non-vocational element or sector concerned with the traditional educational values of learning, and research and intellectual discovery should be available not merely to a small elite but to all those of whatever age who wish to pursue them.

This is true today to a large extent of the American system of higher education which serves the masses through the community colleges, the four-year college system and the universities. But Ashby has explained it in his catching phrase "more means different" and he asked the question, "different in what precise ways, for whom, and to what ends?" The structure of higher education might mean different things to different countries. Harold Perkin pointed out "the structure would obviously be different under similar pressures of student numbers for countries like the U.S. where student demand and consumer choice prevailed, for Eastern Europe, where higher education served the ends of the state plan economy, and for France, where the inner logic of a highly centralized Napoleonic system seemed to frustrate all efforts at radical reform.[18]

(b) *Application to India*

"More" education in India should really mean "different" as

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[17] This is also separately published as *Occasional Paper No.* 6 by the International Council for Educational Development, New York, 1973. This appears in *Higher Education Journal*, Vol. 2, No. 2, May 1973.

[18] *Higher Education Journal*, Vol. II, No. 2, May 1973, Amsterdam, p. 135.

Ashby has pointed out because throughout the four plans when we have been expanding education in India the needs of majority of the people have never been met, varieties of training programmes for educational opportunities throughout life have not been provided and we are failing in handling the situation where we have started talking of controlling higher education though it caters to only 4 per cent of the age-group against about 40 per cent or 50 per cent in the U.S.A. and over 15 per cent in most of the European countries.[19]

6. *Different Modes of Education*

The main difficulty about the Indian educational scene has been, when we peruse the chapters on education in the Planning Commission's Five Year Plan reports and the reports of the Radhakrishnan, Mudaliar and Kothari Commissions, that we have only talked of expansion of education with the traditional patterns and values, and not realized different modes of education necessary for the country, both formal and informal in a coordinated system.

We have to assume that all education is for a vocation in which different types of liberal education and training would be required for different types of work and would often be a mix. The system will have to be so flexible as to enable anyone to change to any vocation and training in which his interest would lie. But our research material on this problem is so scanty that we tend to make generalizations for want of data and express our prejudices and intuitions in the reports of the commissions and committees, in conferences and discussions. The strong traditional view tends to seek popularity but is often dysfunctional to original thinking, new experiments and innovation.

7. *Internal and External Forces*

The internal and external forces acting on the Indian system of higher education are such as emphasise the reactionary elements of traditionalism. Systematic presentation of intersecting coordinating lines have yet to be made available by the Central Bureau of Education in the Ministry of Education, by research scholars in different disciplines and by the academics.

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[19] See Robbins *Report on Higher Education*, 1961-63, London HMSO, p. 42; also see Appendix Five, Part I for international comparisons of percentage of age group in different countries. The figures are for 1958-59 which have gone up in 1974.

The external forces are those of the government and of political and social pressures. The internal forces are teachers and students along with the university organization and the academics. These have become prominent now in the 60's and 70's of this century. The clash between these elements is such that reform measures in terms of modernization of courses, improvement of examination system, and reform of teaching methods become difficult.

8. *New Reforms*

A suggestion has been made about autonomous colleges and the new system of examination reform with semester system and valuation of the term work of the student. The initiative has not come from the universities themselves but from external forces.

(a) *Examination Reform*

Examination Reform has not been a new thing in the Indian scene. It has been there from the year 1902 when Curzon's reform measures were introduced. It is easier to implement some of the suggestions of the U.G.C. regarding reform in examination in the Indian institutes of technology, agricultural universities, some engineering colleges and medical colleges. But this covers hardly 5 per cent of students. The majority of them are tradition-bound. The main defect of the examination system is corrupt practices among teachers, guardians and students. In a study of the Baroda University by the Rudolphs in their chapter on Parochialism and Cosmopolitanism in University Government: the Environments of the Baroda University, in their book *Education and Politics in India*, they have mentioned the following regarding the "bribery of examiners" in the university.

"However, parallel with the educational socialism which increased admissions imply, there is at the MSU (Maharaja Sayajirao University) as at other universities, the countervailing free market educational sector that preserves plutocratic access to intensive if not high quality education. This countervailing plutocratic trend is most noticeable in the higher opportunity medical and engineering faculties and is organized around private coaching. Students are admitted to medical colleges and the technical and engineering faculties after taking examinations given at the end of the preparatory science year that precedes the normal 3-year degree or professional course. Top students in the preparatory science examination have the advantage in admission to the engineering and medical faculties. For a fee, some lectures in the science faculty give private coaching beyond the normal college teaching to groups of students. The groups may contain about 10 students; a lecturer might have 2 classes of 10 or so. Some students pay as much as Rs. 150 per month which supplies a large salary increment for assistant, junior and senior lecturers whose monthly pay in 1967 ranged from Rs. 400 to Rs. 800.[20] Some of this money may find its way to the examiner to make sure that the preparatory students will do well. The tuition system affects all faculties but its economic advantages are highest in the preparatory science faculty. The advantages of the dual sectors, one socialist and one free market, to teachers are such that lecturers are said to turn down readerships which make tuition difficult. The actual prevalence of the tuition system is difficult to determine because its instances cannot be counted and informal reports probably exaggerated both the numbers and the gains

"Except for the bribery of examiners, tuition system at Baroda as well as at other Indian universities is considered a normal, if faintly irregular part of the academic scene.[21]

What is said about Baroda University may be true from all the reports one gets of nearly all other universities in India. Different practices of corruption permeate the system of examination.

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[20] MSU of Baroda, Budget Estimates for 1967-68.

[21] *Education and Politics in India*, edited by Susanne Rudolph and Lloyd Rudolph, Delhi, OUP, 1972, p. 258.

Even the new reform of semester system or the system where marks are allocated for term work or the replacement of marks by grades will all have the loopholes for corrupt practices. Our main argument is unless all institutions are brought in an organized system it is difficult to identify and attack problems of this nature. However we have to encourage experiments and innovations for reform.

(*b*) *Autonomous Colleges*

In regard to the autonomous colleges which expression has been current during the last 10 years in the discussions of university problems, the idea was incorporated in the Act of the University of Agra, and was perhaps borrowed from the US system of colleges. No college has been declared by Agra university or the Government of U.P. as autonomous. It came as a major suggestion in the Education Commission's Report and now the U.G.C. has recommended it to all the universities with special assistance.

Unfortunately for Indian traditions we started in a wrong way when in 1857 three universities were established as an institutional transplant from Great Britain based on the affiliating University of London. The affiliating university pattern has been developed in India, with unparalleled zest among politicians and educationists and being a poor country it has entrenched itself in the system to such an extent that it is now difficult to get out of it and teachers in colleges who have a share and stake in university affairs and in examinations may find it difficult in the long run to work out the concept of autonomous colleges. Besides it will be criticised by many as encouragement of a caste-system among colleges and create many areas of conflict. Some academics also feel that in the same university there will be different types of graduates and the sense of competition in the university, among students, teachers and institutions for the first ten places will disappear; this they feel is a healthy incentive. It is a very intertwined, interconnected system of higher education where indeterminate politics play such an important part. Instead of recognizing a single big college as autonomous, it is much better to recognise a group of them so that at least the academic discussions will be more liberal and informed and save single colleges from being autocratic organizations.

12. *Conclusion—Educational Policy*

Education in the present century can be considered to be a duty and responsibility of the State for governments are tending to regard general welfare of the people as a prime responsibility. In the written constitutions of many countries this concept has been formally set out (see Fundamental Aims, Rights and Directions, Indian Constitution). Where countries like France, Italy and Turkey have adopted new constitutions, such aims have been stated and also in the constitutions of emerging countries which have undergone a complete change in their political and economic structures. In Mexico, for example, article 3 of its Constitution refers to a duty of developing faculties of the people and the Constitution of Turkey (1961) states that it is one of the fundamental tasks of the State to provide for the education of all people. In other countries specific legislation and activities of the governments make it quite clear that education is considered to be an essential means of realising their social policies. Legislation is meant to give an administrative structure whereby governments can make financial resources available for the support of colleges and universities.

Formerly, the importance of educational administration was not so much recognised when compared with other Ministries in charge of Finance, Home, Foreign Relations and those dealing with the economic sectors. However, now the Minister for Education has come to be an important member of the supreme policy-making body of the council of the ministers particularly in the states of India. The administrative organisation responsible for detailed decision-making with regard to the spending of public funds on educational activities has become a major branch of the apparatus of the government.

Whether such decision-making is carried out by the Central Government or it is delegated to decentralised bodies, the development of a comprehensive and well-balanced educational system is increasingly recognised as depending upon the framing of effective co-ordinated policies for the guidance and control of those officials and organs that are empowered to spend public funds. Effective policy-making is seen to consist in drawing up a series of practical objectives whose progressive realisation leads consistently in the direction of the general goals of the society in question. Such objectives have to be stated in concrete and practical terms so that they can be used as a guide to immediate action and it is possible to evaluate accurately the degree to which they have been achieved at any point in time.

A systems analysis, economic balance and structural reforms help an educational organization achieve aims of any state educational policy. Concrete suggestions have been made at the end of Chapter VI.

CHAPTER VIII

THE NEED FOR COMMUNITY/JUNIOR COLLEGES IN INDIA

Introduction: The Concept

The idea of Community/Junior Colleges is an important part of restructuring education. We discuss in this chapter the concept and the international significance of the institution as a 20th-century device for dealing with large numbers and training of middle-level manpower for the economic and social needs of a nation.

The community/junior college[1] is a new social invention intervening structurally between the school and the university though it is part of the higher education system and not of the school. It is intended to serve in India students of the adolescent age-group (16+ to 18+) primarily, but it is flexible to involve everyone in the community from the adolescent to the very aged. The assumption is that education is a continuous and interlinked process and there should be some institution which provides all types of training for all types of people without the rigidity of courses found in the established institutions of that level in India. Courses of study and their duration have to be formulated in relation to the demands of the community and national needs by authorities charged with this responsibility.

There is no organized institution today catering to such social requirements excepting some private, or government-sponsored courses for painting, music, embroidery work, cookery, printing, etc., as well as for social service and secretarial courses. Institutional training given in women's polytechnics and in the other polytechnics, in junior teachers training colleges, and the industrial training institutes or trade schools is unco-ordinated under different authorities and rigid and does not provide for those who could join an institution to fulfil their desire or dream of learning a skill or a craft for the sake of either cultural advancement or professional achievement. The existing institutions are inflexible in their courses of study as well as duration. Besides they do not have the university status.

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[1] The expression Community College is commonly used for the institution. 'Junior College' and the "two-year institution" are terms that have a historical background of growth in the USA where since 1950 the three terms are used to connote nearly the same sense.

The proposed community colleges should play a major national role in the most important educational developments of the future. An intermediate institution has to be established on a wide scale. This is not a new concept because it was already recommended by the Sampurnananda Committee on Emotional Integration (1962).[2] At present in one form or another, it is in existence in the junior colleges of Kerala and of a different type in Mysore and Andhra Pradesh and in the form of intermediate colleges in U.P. Besides, there are the polytechnics, junior training colleges, industrial trade schools, etc., under different authorities.[3]

It is proposed that the several attempts in this direction in public and private sectors to cater to the requirements of adolescents and adults not only in relation to middle level manpower requirements but in relation to the needs of other externalities of education should be institutionalised under a co-ordinated pattern for educating the large number of school leavers and training them to fulfil their aspirations and potentialities.

National Goals and Training Requirements

National growth and change have resulted in our national goals and targets being set out every five years through the national plans and education plays a significant role in organizing our efforts at national progress.

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[2] Sampurnananda Committee—*Report of the Committee on Emotional Integration*, Ministry of Education, New Delhi, 1962, p. 40. See also Chapter VI.

[3] See Chapter VI——discusses how existing institutions of the same level could be coordinated into a system of community/junior colleges affiliated to the universities.

While we are struggling against the pull of the past, i.e., traditions, superstitions, blind faith, social customs, etc., on the one hand and vision of the future like the dreams of Jawaharlal Nehru to build up a sound economy for a strong nation inspired by the scientific and technological developments in the world on the other, the following principles would guide us for action in the development of higher education and scientific revolution by establishing community/junior colleges.

1. It is necessary to have an informed and responsible electorate motivated for all types of national work for Indian democracy. The existing institutions serve this purpose only partially and any adult cannot take recognised educational courses of short duration in any speciality for the purpose of being informed about the events in the country and the world at large in a particular field. The proposed junior college is not only a training and teaching institution but also a repository of information, a kind of encyclopedia, of everything happening in the world, not so much for pursuit of scholarship or research but for basic information and imparting of basic skills for all types of occupations. It also serves as a preparatory ground for students to be transferred to higher college and university programmes with strong foundation courses.

2. Technological development in India today on account of the lead given by the government and our scientists, engineers and technocrats needs trained manpower at different levels. In engineering industries, for example, manpower has been classified into 5 categories, (1) designer, (2) technician, (3) craftsman, (4) operator and (5) unskilled worker. These categories are in relation to job distribution and not meant to discourage promotion from one category to another. A skilled craftsman can be a technician if he fulfils certain requirements. The junior college would provide orientation courses for the purpose. However, the designer has to be a person with a high academic background and deep knowledge of the subject. The engineering colleges and institutes of technology produce men of the first category, the polytechnics of the second, the industrial trade schools of the third and for the fourth category in-service training is given to

persons recruited. The unskilled worker could be an operator by practice and training in service. Similar levels are obtained in other fields of the economy in various sectors of production work where instead of these categories there may be fewer in levels of requirements. The universities today produce only the first category of manpower while other forms of training including apprenticeship and in-service training are provided by the industries themselves or the other institutions, private or public, producing middle-level manpower. These institutions very often do not know the needs of industries and they are bound by rules and regulations of the government boards of technical education and it is possible that where a two-year programme of training is all that is necessary, one year more is added for the purpose of uniformity of courses or teachers' ambitions. The tendency is for courses being rigid, cumbrous and out of date. Secondly students who take up these courses do not enjoy the academic prestige of the universities. In the proposed junior colleges all these training programmes will be provided and they will get the academic status of the universities because our proposal is to affiliate the junior/community colleges to regional universities.

With the development of technology there is a demand of new and ever improving skills. Short-term programmes of 3 to 6 months in some cases and in others of longer duration would be adequate for theoretical background. Intensive practical training will be in the factory or industry itself. The to-and-fro relations between employing authorities and training authorities have to be established through the training programme and a sandwich system if possible. This is attempted in the community college.

3. A significant point is that the main objective of our Constitution is to provide cultural development of our citizenry to secure a social order for promotion of welfare of the people.[4] There is a demand for knowledge of fine arts, literature, history, social sciences and developments in science and technology in short-term courses by several adults who are eager to have applied courses of study and whose needs have to be organized in a big programme. This will be provided for in the community college.

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[4] *The Constitution of India*, art. 38.

The basic objective of the community college is to welcome anyone who wants to get a short-term programme in any branch of knowledge leading at the minimum to a certificate from the college or university. The proposed arrangement is that for the short-term programme there will be a certificate for a one-year programme or of lesser duration and for a 2-year programme or longer there will be the Associate of Arts[5] degree—awarded by the university to which the college would be affiliated. Individual self-fulfilment is the objective of these institutions.

4. It is necessary to have all types of training programmes and educational opportunities at the adolescent stage, i.e., between the average age of 16 to 18+. The programmes have to be varied in kind and should fulfil the life-long expectation of knowledge. The community college is proposed to be open from 7.00 a.m. to 9.00 or 10.00 p.m. and the time-table for different programmes will be fitted according to the convenience of the applicant. The demand for teaching as well as the timings of the programmes are left to the students, faculty and the organizers. There will be a greater interplay between the community and the institution because the institution is what the community desires and the community finds its interests fulfilled by the institution.

5. Lastly, it is more economical to have a network of community colleges spread over the whole country in proportion to the existing number of high schools. The total number of high schools in the country was about 35,773 in 1971[6] and is estimated to be more than 40,000 in 1974. The number of colleges is 4000. The number of junior colleges will be proportionate to these and may require the establishment of 100 or more community colleges per year in addition to the polytechnics—junior

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[5] The term Arts is used here in its generic sense to include all skills, technical, scientific, humanistic or artistic. A degree of Associate of Applied Science (AA) could also be introduced.

See *Carnegie Commission Report A Digest of Reports of the Carnegie Commission on Higher Education* 1974, p. 24.

See also C.C. Reports on *The Open-Door Colleges* 1970 *A Chance to Learn*, 1970, *Less Time, More Options*, 1971, *New Students & New Places* 1971, *The Fourth Revolution*, 1972.

[6] *Education in India since Independence, Statistical Review*, 1972, Ministry of Education, Government of India, New Delhi.

teachers training colleges—industrial trade schools all of which will be converted into community colleges.

Nature of the Community College

At the outset we should make it clear that in the field of education there is so much international give-and-take of ideas that we should not reject any new idea but examine it on the basis of its inner logic and adaptability to Indian conditions. The concept of the community/junior college though it has originated in the USA, 75 years ago, suits India, the largest democracy of the world with its problems of numbers and costs. Critical studies and analytical investigations have been possible in the USA because of the large funds provided for research by big education foundations like the Carnegie, Ford, Rockefeller, etc., as well as governmental resources. This has not been possible in India though attempts are being made to provide small funds for research by the U.G.C and other governmental agencies.

It is no wonder therefore that much of the sharpest and most fundamental thinking about education during the last 10 years has come from the USA. The reports of the Carnegie Commission (1968-74) and several other studies are illustrative. It has not been possible for us to do such research in India as yet. But since others with means are already doing it we should be grateful for the results and examine the applicability of the principles and suggestions with requisite degree of adaptation to Indian conditions. The American Association of Community and Junior Colleges, Washington, similarly has been studying the problems of community colleges in depth over the last 30 years though the idea of community colleges has been in USA since 1900. They have brought out several studies through publications and their journal, pertaining to both American and international aspects of development of middle level manpower. Thus there is a scholarly and analytical background to the concept of junior/community colleges.

The word community college was first employed in its significant meaning by the Truman Commission Report on Higher Education[7] and the Newman Commission Report[8] had described the community college as "everybody's answer" to the solution of the problem of mass higher education. The Carnegie Commission in *The Open Door Colleges*[9] proposed that there should be a larger number of comprehensive community colleges within commuting distance of every potential student of 1980.

Answer for Increasing Numbers

During the decades of development the concept of community/junior colleges in the U.S.A., Japan, Canada and Ceylon (Sri Lanka), we have come across some criticism and opposition necessary for development in any democracy. But the movement of community colleges has become stronger than ever because of the criticism for improvement in all these countries. That seems to be the only answer for the large numbers at the post-high school stage and for training manpower at the middle level.

In the beginning the junior colleges operated under many disadvantages. As newcomers in the field of higher education they lacked the status and prestige of the older 4-year colleges in the U.S.A. Academic snobs even considered that they were the last resort of those who did not do well in the school system and were not likely to benefit by the regular college or university teaching. Analytical studies, government reports and public opinion have proved such criticism to be prejudiced, erroneous and baseless.

These misapprehensions gradually disappeared since 1960 and the community colleges have developed their own identity and pride. It is true that even in America there are all types of community colleges which numbered 1141 in 1972 with more than 29 lakhs (2.9 million) of students. These are often known as 2-year colleges including some of the technical institutes that are prevalent in U.S.A.[10] More than 3/4th of the colleges are tax supported public institutions known as community colleges which charge modest fees or none, and the remaining are private junior colleges charging substantial fees like the private four-year degree colleges of the U.S.A.

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[7] *Higher Education for American Democracy: A Report of the President's Commission on Higher Education*, Harper & Brothers, New York, 1948.

[8] *Report on Higher Education* (Chairman Frank Newman), U.S. Dept. of Health, Education & Welfare, Washington, 1971.

[9] *The Open Door Colleges*, Carnegie Commission on Higher Education, McGraw-Hill, New York, 1970.

Development in the U.S.A.

Some finer distinctions apart, the term community college is used synonymously with junior college and very often with the two-year institution; the latter included the vocational technical schools, and branch campuses. The development of these institutions has been phenomenal in the U.S.A. From a total of 8 private colleges with an enrolment of 100 students reported in 1900 to a total of 1141 in 1972[11] of public and private colleges with an enrolment of 28,66,062 is an extraordinary phenomenon. The following table[12] will explain the rapid growth during the last 35 years:

Year	*Total number of colleges*	*Total enrolment*
1940	627	2,06,984
1950	597	4,39,332
1960	678	6,60,216
1970	1091	24,50,451
1972	1141	28,66,062

In 1972 80 per cent of the institutions were public colleges and 20 per cent private institutions. But more than 90 per cent of students were in the public community colleges.

The figures reflect the vitality of growth of the junior college movement in the U.S.A. and similar is the case of the sudden growth of junior colleges in Japan from 1945 to 1970.

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[10] 1973 *Community & Junior College Directory*, A.A.C.J.C., Washington, 1973, p. 5.

[11] 1973 *Directory of Community and Junior College*, AACJC, Washington, 1973 (Gives figures for 1972).

[12] *Ibid.*, p. 7.

Enthusiasm for the community college is spreading very widely in Canada, Japan and Sri Lanka and other countries. In the U.K., interest is being shown in the 2-year institutions and the latest White Paper[13] indicated a 2-year degree course instead of a 3-year degree course in non-university institutions for certain disciplines. However, the binary system of university and non-university type of institutions of higher education in the U.K. has been criticised by many British educationists. It shows that the problem for training middle level workers through educational institutions exists in all countries.

Countries with largest populations of the world like India, the U.S.A., the U.S.S.R. and China have more community problems of growth and change than other countries on account of their historical and cultural past and the resultant complexity in co-ordination. The British solutions of higher education will not be applicable to India now because quantities have a direct relationship with the quality-affecting structure of institutions as well.

Lord Robbins giving evidence in New Delhi before the Indian Education Commission (1964-66) had indicated that during the visit of the Robbins Committee to the U.S.A. they were impressed by the community college movement of that country. While the Robbins Committee had thought that it was not necessary to restructure British education in the American way because the sixth form in which a student spent 2 or 3 years and the Colleges of Further Education were in some respects comparable with the American junior college and the 3-year degree course of the British university which followed it was a good training programme traditionally handed down to the British for the undergraduate. Lord Robbins however thought that the junior college might serve as an answer to the Indian problem of numbers.[14]

The Robbins Report on Higher Education[15] particularly mentions the junior college experiment in the U.S.A. in the following paragraphs:

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[13] *U.K. White Paper on Education*, 1973.

[14] Mimeo evidence of Lord Robbins before the Education Commission, 1965.

[15] *Committee on Higher Education Report*, 1961-63, London, HMSO, 1963.

"451. A different type of new institution was proposed by other witnesses who advocated the courses of separate junior or preparatory colleges to undertake the later stages of 6th form work and the first year of the university work. They argued that many schools were inadequately staffed to prepare young people going into the universities to study science or technology. As a result, students lacked the basic equipment for success in a university course, and this was a major cause of wastage. They also argued that the level of the work in these subjects in the first year at a university did not require a teacher who is also engaged in research, and that to remedy deficiencies of schooling was not an appropriate task for a university teacher.

"452. These arguments may at first sight seem attractive, in so far as they claim an analogy with junior colleges—some of which we much admired in the United States. But the American junior college fits into quite a different pattern of secondary and higher education. In this country to exclude 6th form work from the school would deprive them of a source of inspiration at all levels. We are concerned with the effect that such a scheme would have on a higher education."

What applies to U.K., however, does not apply to India for we do not have the institution of the 6th form and we have far too larger numbers to follow British models. In another chapter where Robbins has made international comparisons, he has referred "to the sustained attempt to devise and carry out a plan for the co-ordinated development of institutions of higher education in the U.S.A." He points out that the most conspicuous example of this was found in the State of California where 50 per cent of the young people already entered higher education compared with just over a third in the U.S.A. as a whole. He also says that in the U.S.A. the main reason for establishing junior colleges was a sheer weight of numbers. Initially they would find their own level in the junior/community colleges. Transfer courses of these colleges would help them to go to the degree colleges and later to the graduate departments of universities. He further says that "the large scale of development of Junior Colleges in the U.S.A. makes it possible for students who fail to gain entries into the university to take the first 2 years of the course often nearer their homes and with less expense. If they are successful they may then transfer to the university to complete a first degree. The Junior Colleges have also a second important function in providing a complete though shorter form of higher education for students who leave after 2 years."[16] The British did not want to change their system though there was a strong opinion that the American experiment could also be tried in the U.K..

However, Robbins was of the view that Indian educationists may consider this pattern as applicable to the large numbers of students waiting to go up the ladder of higher education.[17]

A major report of the Carnegie Commission entitled *The Open Door Colleges*[18] (1970) said that the main barrier for development of community colleges has been the existence of the competing types of 2-year institutions and recommended that these competing institutions should broaden their programmes and become comprehensive community colleges or at least not stand in the way of the community college movement.[19] We are similarly suggesting the co-ordination of polytechnics, ITI's, junior teachers training colleges and institutions of similar level under a movement of community colleges affiliated to the universities as in Canada and Sri Lanka.

The exciting possibilities of community colleges for India cannot be overstated. We are not making a distinction between the 2-year college, the junior college and community college because the proposal is to set up a different type of machinery in India in which the U.P. type of intermediate college and the Kerala type of junior college would without much effort adequately fit in with some modification. Why do we have to do it?

A Community Institution

A community college is essentially a community institution,

[16] *Robbins Report, ibid.*, para 108, p. 37.

[17] Mimeographed evidence of Lord Robbins before the Education Commission, 1965.

[18] Carnegie Commission on Higher Education, *The Open Door Colleges*, Mcgraw-Hill, New York, 1970.

[19] *Report on Higher Education*, U.S. Department of HEW, Washington, 1971, p. 57.

i.e., an institution of which the community is proud and which satisfies the demands of the community for post-high school education and for middle-level manpower of the nation. In a large sense the community college extends itself to society, for society itself can be used as class-room and laboratory.

In the article, 'Need for junior colleges in India'[20] (1965), the author had argued that while it was difficult to have restrictive admissions at the university or college level for social and political reasons at this stage, it was possible that the students themselves could have the choice of voluntary selection of courses by the device of junior colleges. Any restriction or control on admission would only result in discontent amongst students and their guardians and naturally will have political repercussions making the implementation of any policy of restricting admissions impracticable.

Answer for Choice

If therefore a number of courses ranging from 100 to 300 and more of both terminal and transfer nature were provided in community/junior colleges, it will be for the students to have their own choice which could certainly be guided by a good deal of information and guidance services. Besides students would be more mature at the age of 16+ than at an earlier stage to decide whether they should opt for transfer courses of the junior colleges, or for terminal courses which have scope for immediate employment.

Colleges Provide Better Facilities Than Schools for the Two Classes

Moreover, the biggest advantage would be getting better qualified and well-trained students for admission in the 2-year or 3-year degree course (pass or honours) of the university after the university has tested them in a competitive examination as the university itself will be competent to judge them and not an external board of examination. Good preparation is not done in the higher secondary schools having the 11th class for many reasons;[21] for want of competent teachers, lack of equipment, poor libraries and laboratories. *It is a fact that the colleges today have better academic facilities for running the courses for 'intermediate' years than the schools can ever have.*

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[20] *General Education Quarterly*, III, October, 1965, University of Bombay, article by K. L. Joshi on 'Need for Junior Colleges in India'.

Actually there is a break academically and psychologically between the 10th class which is the school final year and the next 2 classes preparatory or terminal. Historically they cannot be attached to the schools because for more than a century these have been always in the colleges, and universities had been holding the examination (Intermediate) for them. The attempt of the Sadler Commission to transfer these classes to the school system failed in all states and even in Bengal. It was forced in U.P. with the establishment of the Intermediate Board which introduced the system at a very heavy price of lowering the standard of school education for lack of good teachers, buildings and equipment and high academic courses of study. Psychologically if the intermediate classes are attached to the school the teachers of those classes feel they are different from teachers of other classes and the organization creates tensions of inequality. This is evident from a separate association of post-graduate teachers of higher secondary schools in Delhi who in the same school assert separate existence. It may also be pointed out that the adolescent students after the age of 16 are anxious to be treated as mature students in the colleges and should be exposed to the methods of 'self-study' of the university type rather than methods of coaching adopted in the schools, where students entirely depend on teachers. Besides students would like to be known as college students after the 10th class rather than continue in the restraining atmosphere of the schools. In this discussion the 10-year school of India would develop on the USSR pattern, to be equated with the 12-year school of the USA for reasons already mentioned.

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[21] Annual Reports of the Universities of Sagar, Jabalpur, Vikram, Indore, Gwalior, Raipur, 1967-1970, regarding large failure rates in colleges of the output of higher secondary schools, ranging from 70 per cent to 80 per cent.

International Pattern—Japan, Canada and Sri Lanka

The U.S.A. idea has further spread to Japan, Canada, Sri Lanka and other countries as well and naturally what was achieved over more than half a century in the U.S.A. has been achieved by these countries in a shorter span because of the knowledge of technicalities of development. The main argument is that whenever a country seems to feel the need for middle-level manpower development, this was a useful device. This happens when a country develops from an agricultural to an industrial economy. This device also eliminates the dangers of early vocationalization at the secondary school stage as a remedy for controlling numbers at the tertiary sector.

Japan

Japan is the most significant example of this development and during the American occupation after World War II the United States Educational Commissioner in Japan published a report on the reorganization of its educational system and as a result an educational reform committee was established in the Japanese cabinet.[22] They worked from 1945 to 1947 and the committee developed the concept of new system of 6-3-3-4 as the structure of the Japanese educational system after the American pattern. This meant that the school was to be of 12 years' duration followed by a 4-year degree course in college or university. In 1947 the educational basic law and school educational law were enacted and the new educational system became operational in 1948.

The transformation however was not easy because the old system of colleges could not be easily brought to the level of the new type of universities and colleges. It was at this stage that Walter C. Eells, former Higher Educational Officer in Tokyo, helped in introducing this device of junior colleges in Japan. He had a great deal of experience in the U.S.A. and was able to see that in devastated post-war Japan where older institutions which had been concentrated in big cities and were completely destroyed during the hostilities, large funds were required for restoration. However, high inflation created financial difficulties for private institutions. Therefore the economic and social state of Japan demanded a special higher educational institution which would shorten the period of university education for many and cultivate professional, practical and competent persons to bear the burden of a reborn state after the devastation of war.

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[22] Hiroshi, Naito, 'About Japanese Junior Colleges', article in *International Development of the Junior College Idea*, AACJC, Washington, 1970, p. 27.

What Japan saw in 1947 we could see today because we have the same aspiration to build an industrially and scientifically strong base for a progressive nation and we have realised that the old system has become unwieldy, financially unmanageable and instead of helping manpower requirements has created unemployment of various types. However, we could modify the 12-year school system to 10 years of the Soviet pattern.

In Japan in the beginning it was a temporary 2-year or 3-year educational institution, the aim of which was to offer,[23]

(1) More generalized higher education for transfer courses to the degree colleges;

(2) Junior college education for practical, professional and semi-professional vocations as terminal courses;

(3) Adult education; and

(4) Formation of proper links with the 4-year colleges.

The system grew from 1947 with 149 junior colleges; by 1964, the total had reached 290 and in 1968 there were 468 junior colleges out of which 402 were private institutions, the remaining being publicly managed.[24] Majority of them are for women because female education in Japan had always been backward and women found that this institution gave them scope for all types of terminal courses which would help them as housewives. Besides some of the women graduates of the junior colleges were accepted in industry and business.

On June 17, 1964, the Revision Bill of the School Education Law was passed by the Japanese Diet which gave recognition to Junior Colleges started in 1947 as fullfledged higher institutions of learning. The progress for the last 10 years has been rapid. "The future prospects for junior colleges in Japan can be foretold as brighter than ever when one looks at such favourable factors as fullfledged status for the junior colleges and the fairly high level of employment. The continually increasing population desiring and requiring higher education will also contribute to the growth of the colleges, as will the higher living standards brought on by the developing industrialization and urbanization of this country."[25]

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[23] Hiroshi, Naito, *op. cit.*, p. 28.

[24] *Ibid.*, p. 28.

There were a number of difficulties during the period of development. For example, men were not anxious to join the junior colleges but at the same time the number of women who joined these institutions was very large. Of the total number of students enrolled in the universities in 1961 14 per cent were women whereas the reverse was true in the junior colleges where about 68 per cent were women.[26]

An important development has been the easier access to higher education. The new types of mid-level institutions admitted more students on open basis than the universities did taking away also the pressure upon the universities. Secondly, programmes of training of all types were provided for in the junior colleges. New needs in relation to the manpower included semi-professional training in business occupations, technical vocations, as well as medical and social services. Provision of general education is an important factor of higher education and junior colleges have opportunities for this and for adult education and continuing education. This results in democratization of higher education and the colleges have become pioneers in diffusion of culture to many local communities all over Japan. They have been described as "people's colleges" as well as institutes of manpower development in the local community.

The women students take to teaching profession and private junior colleges train most of the kindergarten teachers in the country as well as primary teachers. In 1967 there were about 10,000 kindergartens in Japan and every year this number increases by 500.[27] Teachers for them are provided by the junior colleges.

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[25] Watanabe, Akira, *op. cit.*, article 'Genesis of the Japanese Junior College, p. 26.

[26] Gleazer, Edmund J., Jr. and Medsker, Leland L., article, 'Potential in Japan', *ibid.*, p. 3.

In 1968, 402 out of 468 colleges were private institution, just as 70 per cent of the 4-year colleges were also privately managed. These face financial difficulties and they are now anxious to acquire large government assistance, and the Junior College Association of Japan is working out schemes for government aid.

The law of 1964 defined the aim of junior college as follows: "the aims of the junior colleges are to instruct and encourage intensive study in the arts and science on the semi-professional levels equipping graduates with the abilities for the vocational and practical way of life." In spite of this, however, the difficulty in Japan as in every country is to secure necessary funds for operating expenditure as well as capital inputs. The private colleges depend heavily on tuition and special fees charged for examination, library and the museum. However, Japanese economy could solve this problem, but we have to note that even the developed countries have the same problems as developing ones regarding provision of finances for educational opportunities.

The vocational programmes provide training for different types of occupations; a brief list could be given below:

Agriculture; agronomy; aircraft engineering; American language; applied chemistry; architecture; automobile engineering; botanical agriculture; brewage; broadcasting; Buddhism; business administration; child welfare; Chinese; Christianity; civil engineering; clothing; commerce; construction; dairy farming; dental hygiene; design arts; dyeing; spinning and weaving; economics; education; electricity; electro-communication; electronic engineering; English; French; general studies; German; home economics; hygienic engineering; industrial chemistry; industrial design; Japanese literature; law; living arts; living design; living science; metallurgy; music; nursery education; nutrition; photography; physical education; printing; psychology; psychological technology; Russian; sculpture; selling efficiency; shipbuilding; social welfare; sociology; theology; traffic administration; veterinary medicine; welding; wireless communications; wood industrial arts.[28]

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[27] *Ibid.*, p. 29.
[28] *Ibid.*, p. 34.

Canada

Canada's difficulty in establishing junior colleges was in the first place the rigidity of provincial control of education in the 10 provinces of Canada and secondly the political and fiscal entanglements involved in attempting to acquire federal funds for post-secondary education.[29] Control of all education in each province by the provincial authorities has created certain difficulties like in India regarding uniformity of educational opportunities at the post-secondary stage. Since 1966 the federal aid to education has been developed into larger grants from $2 per capita to $5 per capita;[30] grants to institutions being made on the basis of per capita calculations.

In the different states of Canada, therefore, there have been different directions in which the junior colleges have developed; for example, in Alberta the junior colleges have strong bonds of affiliation with the provincial University of Alberta which has meant virtual university control of curricula, staffing, admissions and examinations.

This actually is a good model for India and we have indicated that the proposed junior colleges in India should be affiliated to the regional universities. Some of the other states in Canada also have retained university affiliation as a requirement for the junior colleges. For example, Saskatchewan has required that the junior colleges in the state should be affiliated to the university. The federal minister of manpower and immigration, Jean Marchand announced in October 1966 as follows: "Our post-secondary proposals are based on two principles. First they should provide for escalation, because the needs are increasing so much. Our formula does that. Secondly post-secondary technical education should provide a comprehensive formula within which each province can structure its own post-secondary education as it thinks best."[31] In whatever directions the provinces in Canada initiated their junior colleges mostly affiliated to the universities, all have many factors in common providing new forms of educational service and augmenting the facilities for all types of students.

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[29] *Ibid.*, p. 41, article by Lou S. Grant, 'Canada's Evolving Two Year Colleges'.

[30] *Ibid.*, p. 42.

[31] *Ibid.*, p. 48.

To quote Gordon Campbell on community college in Canada: "Canada is in the midst of a spectacular expansion in its post-high school institutions of higher education. This rapid evolution cannot fail to have a profound effect in the areas of personal fulfilment, cultural development and economic growth. Whereas programmes for the formal training of young adult citizens have long existed in other industrialised countries, Canadian needs are being met with new plans consistent with this country's historical background and sociological development."[32]

The Canadian community college has come to be organized like its counterpart in the U.S.A., offering the following:

(1) Vocational and technical programmes, either long or short-term, in the trades, industrial, agricultural and semi-professional fields, preparing students for employment upon graduation and providing the employed with retraining opportunities.

(2) University-parallel courses in the liberal arts and sciences, usually providing first- or second-year credit toward a baccalaureate degree.

(3) Programmes in continuing education available in the day or evening, designed to meet the recreational, vocational, or occupational concerns of adult part-time students of all ages.

(4) A counselling service to assist all students regardless of age in choosing careers, remedying deficiencies, and preparing themselves as useful citizens.

(5) Programmes serving groups interested in civic, cultural, or recreational improvement of the community.

Sri Lanka

Sri Lanka's has been recent entry into the field. This is partly because, the Minister of Education and Cultural Affairs of Ceylon, I.M.R.A. Iriyagolla, visited in 1965 junior colleges functioning in the U.S.A. and Japan and he came to the conclusion that the junior colleges rendered many services and contributed to the economic growth and social well-being. He, therefore, set up a team of educators and administrators to develop the junior college system in Ceylon.

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[32] *Ibid.*, p. 50.

Six university junior colleges were established on 30th January 1969, as a result of the deliberations of the team. These are part of the university system. In Sri Lanka the difficulty has been to secure admission to the university because of the heavy competition for every seat. "Under-graduate student admissions to all universities in Ceylon are less than 2,000 each year although 40,000 take the general certificate of education examination (advance level) which serves as the entrance requirement for under-graduate admissions."[33] In order to mitigate the disappointment in not securing places in the universities, junior colleges not only serve as a stop gap but also open new avenues for the students and the state found that it helped to build up manpower requirements of industry, commerce, agriculture and service occupations. Another feature of the junior colleges in Sri Lanka is that the admission to them was not tied down to the results of a particular year's 'A' level examination. These were centralized and effected by the Council of Higher Education. Every student was made to declare his first and second preference of courses and college and was placed on the basis of the course of study and the place available for the purpose.

All features of the community college system have yet to be introduced in the 6 university junior colleges of Ceylon. But they hope to increase the number and community participation in curriculum design will be encouraged.

The curriculum making for the junior colleges has been determined in consultation with the manpower division of the Ministry of National Planning. Academics and the public and private sector personnel assist in the work and community participation in the development of the scheme of studies and teaching is taken care of.

At the end of the 2-year course of study in the junior college where there are terminal courses, job situations may have to be offered to the college leavers in relation to the employment market. A suitable machinery can be organized for the purpose.

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[33] *Ibid.*, p. 92—article *'Ceylon Begins a Junior College System'* by I.M.R.A. Iriyagolla.

It is important to note that like all other stages of education the junior college, while it encourages the productive aspect of the economy, also depends on the capacity of the nation to maintain it at a certain standard.

The Proposed Pattern for India

What happened in Japan, Canada and Sri Lanka is a possible pattern for India but since India has a much bigger population and the problems of different states are varied we have to evolve our own strategy. Considering the international ideas as objectively as possible, we have to design and develop a system which is consistent with the background of the educational development running over the last 100 years with the least disturbance possible. We have therefore suggested that we should accept the 10-year school of the Russian pattern and not the 12-year school of the American pattern,[34] followed by a community/junior college of a comprehensive nature including both terminal and transfer courses of two years, i.e., the 11th and 12th classes.

The proposed community/junior college in India will have the following functions in a co-ordinated educational system.

(1) Providing terminal curricula of 2 years or less in length in vocational, technical and semi-professional courses and similar other courses. But since education is a continuous process, it is no doubt graduated, there are no terminal stages as such in any programme of training; the function of the training is to prepare students for jobs available in the market and industry in both public and private sectors. But they will be welcomed back to the junior colleges for any specialised courses for professional or cultural interests and there will be no bar for adults of any age.

(2) Providing transfer curricula preparatory to advance undergraduate education in the proposed 3-year degree course of the

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[34] It has been already pointed out that the 12 year school course of the American system does not achieve more academically than the 10 year Russian school. See Chapter VII.
See also *REC*, p. 24.

university. (It may be of 2 + 1 as being recently modified.)[35] The idea here is that while the existing colleges will continue to have their 2 years of pre-degree classes after school, there will be no more colleges of this type established at least for some years but only community/junior colleges covering the first 2 years of the intermediate level of university courses in a pattern of 10 + 2 + 3 or 10 + 2 + (2 + 1).

(3) Providing general education for all students terminal and transfer.

(4) Aiding students to make educational and vocational choices that are consistent with their individual aptitudes and manpower requirements in the economy at different levels.

(5) Offering a wide range of general and special courses for adults in the form of continuation studies, conferences, forums, concerts, exhibits, special studies and a number of short-term courses relating to the community needs.

It must be recognised that the community college has an identity of its own though it is a part of the totality of education. It occupies a strategic position in its productive relationship with the high schools and the university and college system.

Objectives

The junior/community college supplies a variety of programmes to meet the needs of a wide range of human capacities, interests, aptitudes and types of intelligence. Training electronic technicians, draughtsmen, nurses, dental assistants, medical secretaries, engineering aids, primary school teachers and various personnel of the middle-level type for agricultural and industrial development should form among others significant modern courses of study at the middle-levels.[36] Many demands of this type in every field are generated by the growing economy through our plans and newer demands are created every year because of technological and social changes. A programme of family planning will itself absorb a number of middle-level workers if special training is given to them as middle-level personnel for the scheme.

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[35] *Education in the Fifth Plan.* A report to the Standing Committee of CABE 1973, p. 17. "At the under-graduate level we may have a pass course of two years and an honours course of three years."

[36] See REC for diploma and certificate courses in agriculture and technology. Annexures to Chapters XIV and XV, respectively, p. 368—(171 courses) and pp. 387-8 (110 courses).

There is also another point that persons are required not only for initial placement in the vocation but for retraining and upgrading them and the community college provides these opportunities for personnel in employment.

The community college will also take care of those who develop later on account of environmental factors and who had shown little promise early. Their desire to learn more and acquire skills at the higher level could be satisfied by the community college.

Costs and numbers

We have to consider the problems of finance and management of such institutions in the reorganized structure of education in the plan by adjustment of existing provisions and on the normal planning pattern of estimating capital and recurring costs. It is possible to project a few figures of requirements of staff, equipment and buildings. But these details can be worked out as they are being worked out for establishment of any degree college or any institution of higher learning. The cost of the community college is in relation to numbers it could admit for a variety of courses. In the U.S.A. there are big colleges like the Los Angeles Valley College which has 19,000 students with about 500 teachers, the City College of San Francisco has similarly about 20,000 students and 631 members of the faculty. The Merrit College, Oakland, has 5,500 students and 312 teachers. There are many colleges that have an enrolment between 5,000 and 20,000 and these are distributed among full-time, day and evening, and part-time, day and evening students including the transfer and the terminal (occupational) type. Similarly the tuition fee varies from $15 in a State institute to $1000 to $2000 in a private community college.[37]

This indicates that there is no limit to financial needs for guidance services, up-to-date equipment, laboratories and workshops, rich resources for instruction including library facilities and adequate salary levels of teachers and administrators. It is estimated that it would not cost more per capita than Rs. 400 p.a., the average per capita cost of college student in India; this is Rs. 800-1000 in Delhi.

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[37] 1973, *Community and Junior College Directory*, AACJC, Washington, 1973.

Affiliation

One departure from the U.S.A. model of junior college for Indian conditions is that it will be affiliated to the university like in Canada and Sri Lanka. The junior colleges in Sri Lanka are all run by the universities. We suggest for India affiliated type of junior colleges some of which could be run by the universities if they choose to do so but they would generally be grant-in-aid institutions, like degree colleges.

The reason for this suggestion is that the traditional academic control over them through the universities like the control of the present colleges will be socially acceptable. We cannot easily depart from the unique affiliating pattern we have evolved as an answer of an economically backward country to spread higher education. Affiliating type is a less costly form of university education and if well organized it could be equally efficient. This type has gone deeper into the social mind for more than a century. Besides there are more advantages in the junior colleges being affiliated to a university rather than administering them by a special board of the government. First, a government board should only confine its administrative activities to the examination at the school leaving (10th class) examinations. Second, the student after the age of 16 becomes adolescent and is anxious to go to college; that is the major reason or justification for a junior college rather than the two classes being attached to the high school as 11th and 12th classes. He needs a university status for his certification. Third, government should not remain involved in the academic programmes but be generally guardian, supervisor, and financier for these programmes that will give an advantage to the government as well as a certain initiative and independence to the universities and to the faculties which could institute new programmes. Fourth, universities will find the institutions a financial gain from the examination fees and the proposal of some state governments like Andhra Pradesh, Maharashtra and others to organize a higher secondary board for examining the student at the 12th class in a school or of the first two years in a college will appear to be too much of an academic responsibility for the government when the university is already there to take the responsibility with a well-set machinery. The Kerala pattern suits us better where the junior colleges are affiliated to universities. The experience of universities in conducting examinations is richer than that of the government and traditionally they enjoy a better prestige. Finally, under this arrangement the university should give the (AA) Associate of Arts degree (or of Applied Science) to students, who perform well in their examinations at the end of the 2-year course and give certificates to others who finish shorter courses of occupational or vocational type.

Organizational Pattern

The educational system is so much linked with the political climate in the country, the Indian Constitution and the powers given to the states to organize universities that the problem is somewhat tangled. We have therefore suggested that these junior/community colleges be affiliated to the universities and not become autonomous like in the U.S.A. Perhaps the pattern will be somewhat like that in Sri Lanka with its university junior colleges and in Canada where the institutions are affiliated to universities. The following will be the main features of the organizations:[38]

1. It is possible for the universities to run a few junior colleges. But majority of the proposed junior colleges will be like other degree colleges privately run and assisted by the grants of the state government and the proposed Ministry of Higher Education.
2. Existing institutions of that level have to be completely coordinated with the system of junior colleges. These will include the polytechnics (including women's polytechnics), the junior

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[38] See Chapter VII.

training teachers colleges, the industrial training institutes, agricultural schools, the proposed agricultural polytechnics and any other institutions of that level.[39]

3. At present there are about 4000 colleges which include 138 engineering colleges,[40] 99 medical colleges,[41] 72 agricultural colleges, 22 veterinary colleges, 2 dairy colleges and 8 agricultural engineering colleges.[42] There are about 3650 colleges which have faculties in arts, science, commerce, law, social sciences. These colleges admit students in their pre-degree classes known as pre-university (PUC) or pre-degree classes (PD) which take nearly 40 per cent of the total number of 40 lakhs (4 millions) of students including of course the higher secondary students of the intermediate classes in the U.P. State. In order not to make any impractical revolutionary change, once we introduce the 10 + 2 + 3 pattern, these degree colleges should continue their present organization and they shall admit students for the intermediate courses consisting of 2 years after 10-year high school.

4. The examination at the end of this course will be conducted by the regional universities.

5. The same course will also be organized in the proposed Community/Junior colleges and being affiliated to the regional universities the students will take the same examination as for those who are in the degree colleges

6. For some years there will be no additional degree colleges established in the country which today are being started at the rate of 350 to 400 a year. Only new junior colleges will be established, or the existing ones expanded to an optimum capacity.

7. The existing 237 polytechnics, 16000 junior teachers training colleges, 356 industrial trade schools, 103 junior technical schools, totalling to about 2300 institutions will be converted as early as possible into junior colleges by expanding them and allowing them to admit not only students for the transfer courses equivalent to intermediate arts, science, commerce, etc., but they

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[39] See Chapter VI.

[40] *Fifth Five Year Plan*, Planning Commission, p. 203.

[41] *Ibid.*, p. 237.

[42] *Ibid.*

will also have the terminal courses in a number of vocations. The programme has to be phased over a number of years.

8. The universities will award the degree of Associate of Arts[43] (A.A.) to all those who pass the examination at the end of the 2-year period. Thus there will be three levels of degrees (e.g., A.A., B.A., M.A.) instead of the present two and a large number may be content with A.A. degree.

9. The admission to medical colleges, engineering colleges and agricultural universities will be after this university examination.

10. It will mean that the present 5-year degree course of some of the engineering colleges will be reduced to a 4-year course after the 12th class. In some medical colleges pre-medical courses have been started and they will now be done only in the junior and degree colleges. Admission to medical and engineering colleges will be only after the university examination for the A.A. degree.

11. A point of difference between the junior colleges in India and those in the U.S.A. would be that while in the U.S.A. the transfer courses in the junior colleges are the first 2 years of the 4-year degree colleges and in India they would also be the same, but these 2 years in the U.S.A. are after 12 years of schooling and in India they will be after 10 years of schooling, like the USSR pattern.

This point is always raised in discussions where the American system and the Indian system are compared and very often the argument is that the secondary school system should be prolonged to 12 years.

This argument is not valid because the Indian student in the tropical climate could develop powers of the adolescent mind early. But more significantly it has been pointed out earlier[44] that the Americans themselves feel that quite a bit of 12 years work in the school could be compressed into a shorter period[45] to avoid a good deal of waste of time if new techniques to teaching are employed and time of the students is conserved.

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[43] 'Arts', used in the generic sense to include all acquired skills. A possible modification would be also Associate in Applied Sciences (AA).

[44] See Chapter VII.

[45] REC, p. 24 where Machlup & Weisner have been quoted supporting the idea that Russians achieve more in a 10 year school cycle than the USA in 12 year school system.

A stronger argument is that in the Russian system only 10 years are devoted to the schools followed by approximately 5-year course leading to qualification equivalent to the first degree and in these 10 years the Russian students do even better in science, mathematics and other subjects than the American students of 12-year course when contents of courses are compared. The first two years of the 5-year degree training in the Soviet system are devoted to general education that we have proposed in the junior colleges and the first two years of the degree colleges.[46]

The student can of course go to the 4- or 5-year degree college but more often it will be cheaper for a large majority of students to join the neighbouring community/junior college.

12. There is a debate about the 3-year course in arts, science and commerce in the pattern of 10 + 2 + 3 whether it should be 2 years for the pass (general) students, 3 years for the honours students. This could be settled by discussion.

13. Programmes for health and para-medical personnel, the middle-level manpower for agriculture, skilled workers and some professional men in different types of occupations and in engineering and non-engineering trades are being dealt with by different Ministries for Health, Agriculture, Science and Technical Education, and General Education in the state and central governments. A co-ordinating administrative and advisory machinery will be established to involve representatives of the different ministries as well as experts in the subjects.

A new type of machinery will have to be introduced in the central government under a co-ordinating agency of the Central Advisory Board of Education. However, if the proposal we have made in a separate chapter[47] to have a separate Ministry of Higher Education at the centre is worked out system organization is possible for a national goal.

14. The two-year course in the community/junior college which has a link between the university education on the one

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[46] Explained earlier.

[47] See Chapter X, 'UGC & the Central Responsibility'.

hand and the school education on the other will provide scope for experimentation and innovation in regard to courses of study particularly providing for general education of the type discussed in the Harvard Committee's Report on *General Education in a Free Society*, 1946, *and Curriculum Building in General Education* edited by Carlin and Blackman (Brown, 1960). There are various studies on the problem in relation to experiments initiated in Aligarh Muslim and Baroda Universities about 15 years ago and Abid Husain has brought out a short booklet on *What is General Education* (Asia Publishing House, 1959). The U.G.C. had also given special assistance to universities to carry out a programme of general education with substantial assistance from the Ford Foundation in India and the *Report on Standards of University Education* of the U.G.C. (1965) had expressed some wise thoughts in Chapter IV (Courses of Study) and Chapter V (Undergraduate Education) relevant to the subject. However, the difficulty of our specialists today is still the same that they are deficient in liberal education.

This deficiency could be made up in the opportunity given during the two years of the Junior College where courses could be flexible and those who major in science or social science and humanities will have elementary courses in other subjects not related to the major.

15. The junior college is not a separate type of institution but is part of the whole system from ordinary schools and kindergarten to university. It has been yet difficult to discover a form of school organization which is congruous with the nature of human mind and its manner of growth and development. At the same time, if the secondary schools contain the 2 years, i.e., classes 11th and 12th, the domination of these 2 classes will disturb the internal balance of the 10-year school from the point of view of organization and teachers and also the freedom, identity and pride of the 10-year school

CHAPTER IX

OPEN UNIVERSITY

Concept of Open University

Open university is a concept of the 1970's though the background for it was prepared in the 1960's. Its origin is out of the crisis in higher education which prevailed during the 1960's and the pervasive belief that colleges and universities in certain areas were mismanaged which resulted in the rebellion of students. The question raised among the world thinkers on education who have been analysing the crisis was what should be the kind of planning at the higher education level in the 1970's and beyond.

The main feature of the 1970's contrasted with the earlier decades was that the social, economic and technological forces which were set in motion earlier were affecting higher education more than ever before. The student revolt in the American universities almost became a passing phase after the end of the 1960's but new horizons have arisen because fundamental thinking about goals and objectives of the higher education were raised along with the question of mass higher education.

This really means that the major thrust of planning in the future should explore alternative avenues by which students could earn degrees or complete a major portion of their work for a degree. In Indian conditions, it has to be an answer to the problem of increasing numbers. This would also provide increased accessibility to higher education for those to whom it is now denied.

We have suggested that junior/community colleges would to a large extent take care of the growing number of school leavers in the Indian system and our estimate was that out of the 4 million students of today, about 2.5 million would be absorbed in this system. However, as primary education and secondary education expand further, larger numbers will be knocking at the doors of higher education and new devices have to be employed for responding to their demands.

In the third and successive plans, we have thought of correspondence courses, evening and morning colleges for fresh and employed students as well as external examinations of universities for those who have been desirous of taking the degree examinations privately. In correspondence courses like those of Delhi University response to postal lessons has been poor. Evening and morning colleges in big cities like Delhi, Bombay, Calcutta and Madras have been successful in only enabling the colleges to use their premises for two or three shifts of students. Therefore such colleges are known in Delhi as 'extended' colleges.

As a result of universities offering examination facilities to private students, a number of private coaching classes which have become popular among students have been established in bigger cities. These classes also coach the regular students and run them as a good business. It is easy to criticise these as "teaching shops" but enquiries among the students would indicate that they find them more useful for their examinations because they complain they do not get much out of the regular college teaching. Of course this is a wide generalization but the rise of the private coaching classes as a business enterprise can be said to be due to the collapse of the teaching system in the regular colleges and the techniques which the coaching classes have developed for preparing students for examinations of all types, not only of the universities but the examinations of the public service commissions and others, have created confidence in students that coaching classes would save them from the examination guillotine.

For Indian conditions the idea of the open university therefore will be different from the one obtaining in the U.K. as the proposed open university in India will embrace various factors that are already present in the system of higher education, particularly where a number of students find it a waste of time in attending the colleges except for the value of socialization. Secondly, the provision of evening and correspondence courses in some universities as well as the provision for enabling students to appear privately for the university examinations without attending any regular courses of instruction prepare the way for open universities.

Open University in U.K.

The open university planning committee in the U.K. was set up in September 1967 following the publication of the Government White Paper (1966) *University of the Air.* Its task to work out a comprehensive plan for the open university became a reality at the end of May 1969.

The background for this concept goes back to the 1950's when the late Aneurin Bevan had suggested for consideration the university of the air and the concept was carefully studied after Prime Minister Harold Wilson encouraged the idea in 1963.

But it took some time to work out this concept; nearly 6 years of preparation from 1965 when an advisory committee was appointed. A white paper was published in 1966 and a planning committee appointed in 1967, a Vice-Chancellor was nominated in 1968, the plan was completed in 1969, and the royal charter to the university was given in June 1969 along with the nomination of a central advisory council and a Chancellor. 'The Times Educational Supplement' of London had published different views of persons who looked upon the experiment with scepticism and they had felt that the concept would gradually fade away but since 1973 it has established itself as a strong university organization.[1]

Its attempt to provide a system of mass higher education for people over 21 without the need for entrance qualifications and yet maintaining academic standards has naturally excited curiosity of governments, universities and academics in many other countries.

The university has a campus in Buckinghamshire countryside 50 miles north of London.

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[1] See *The First Teaching Year of the Open University—Report of the Vice-Chancellor,* 1971, published in 1973, *The Open University,* Walton, Bletchley, Bucks U.K. also *The Open University, Prospects,* 1972.

The best account of the external degrees and open university in Britain as well as developments in the U.S. has been given in the Carnegie Commission Report entitled *New Students and New Places—Policies for the Future Growth and Development of American Higher Education*, 1971 and extracts from this report in regard to this important development are reproduced below.[2]

External Degrees and the Open University in Britain

"The University of London has long had an external degree programme available to persons who have not completed or have not participated in its regular, internal degree programmes. The candidate qualifies for his degree by examination, regardless of how he has received his preparation—through reading, correspondence courses, relevant work experience, or in other ways.

More recently, an exciting new concept in adult higher education has been launched in Britain—The Open University. Actually, the programme is available to college-age students as well as to older adults, but it is an adult programme in the sense that it is designed to make it easier for persons who are holding a full-time job to obtain a university degree.

First suggested by former Prime Minister Harold Wilson in 1963, and reputed to be a brainchild of the late Aneurin Bevan, the concept was carefully studied and developed during the 1960's, and The Open University began its first courses in January 1971.[3] Perhaps its most distinctive feature is that it is a carefully structured programme, leading to a bachelor's degree, that is not "campus-bound". Centres are being established all over the country where students may register for a single course or for a combination of courses that will lead to a degree. When the student registers, he pays a fee and is assigned to a tutor who will guide his work and give him a reading list.

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[2] *New Students and New Places*: A Report and Recommendations by the Carnegie Commission on Higher Education, 1971, pp. 112-117.

[3] This discussion of 'The Open University' is based primarily on articles that have appeared in "The Times Educational Supplement", London over the course of the four years, 1967-71.

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Television courses, carefully planned and broadcast over the British Broadcasting Company's Channel 2 at prime viewing hours, form an important part of the programme, but by no means all of it. Public libraries are expected to play a significant role and will have to expand their holdings of books that will be used in the courses. Correspondence courses are to provide the central core of the programme. So that students may gain maximum benefits from the television programmes or participate if they do not have a television set at home, viewing centres are being established where tutors will be present to discuss the programmes with the students. These are likely to be either in public libraries or in local colleges or universities. In addition, residential weekend and summer school programmes are planned.

Degree programmes will normally take four years to complete, although exceptional students may require only three, and some may take five or more. There will also be non-degree courses of various kinds.

There are no entrance qualifications, but the standards for completion of the work for a degree are designed to be comparable with those of other British universities.

The programme is partially subsidized, with The Open University receiving its funds directly from the Ministry for Education and Science rather than from the University Grants Committee. However, the student's fee covers a considerable proportion of his educational costs, which are expected to be appreciably below those in the established universities.

By August 1970, there were 40,817 applicants, of whom 25,000 were accepted for the first year of the programme.[4]

[4] Interestingly, the great majority of applicants were in professional or managerial occupations—10,000 were teachers, 3,000 were "professional people", 1,600 were administrators or managers, and another 1,600 were scientists or engineers. Only about 1,400 were workers at lower levels of the occupational ladder, while 2,500 were house-wives. Thus, at least on the basis of the first group of applicants, the programme was not destined to serve primarily as a means of assisting working-class people to rise to higher occupational levels, as its originators may have hoped, but was largely to provide further education for persons who already occupied professional or managerial positions.

Similar Developments in the United States

In 1960, the University of Oklahoma established its College of Continuing Education to administer a new Bachelor of Liberal Studies programme.[4a] This is usually regarded as the first external degree system in the United States, but it is probably more accurate to characterize it as resembling an "open university" programme. Although not usually present on the campus, the students are engaged in supervised independent study, followed by short residential seminars. By the fall of 1970, there were 1,500 students enrolled, of whom 1,200 were classified as active. Interestingly, three-fourths of the students were from outside the state of Oklahoma. Subsequently, somewhat similar programmes were developed at Goddard College, Syracuse University, and the University of South Florida.

In 1970, some of the largest institutions in the country began to move toward the development of external degree programmes and/or open universities. In September of that year the State University of New York, supported by grants from the Carnegie Corporation and the Ford Foundation, launched a bachelor's programme for persons who could not enrol for full-time study on a college campus. Students would complete most degree requirements by taking extension and correspondence courses, as well as courses offered by educational television stations.[5] The next step was SUNY's[6] announcement in the spring of 1971 that the following September it would open a non-resident college which would offer instructions through correspondence work, television, counselling, and occasional seminars. Students completing the programme would be eligible for the previously announced external bachelor's degree or for an external associate of arts degree.[7]

Early in 1971, the Massachusetts Board of Higher Education approved a plan for an open university, the University of the

[4a] Burkate, J.E. & P. Ruggiers (eds.) *Bachelor of Liberal Studies: Development of a Curriculum at the University of Oklahoma,* Centre for the Study of Liberal Education for Adults at Boston University, Brooklyn, Mass. 1965.

[5] *Chronicle of Higher Education,* April 26, 1971.

[6] State University of New York (Suny).

[7] *Report of Education Research,* Vol. 3, p. 3, March 3, 1971.

Commonwealth, that would offer external degrees through television courses, correspondence study, and equivalency examinations. The new university would have no campus of its own but would use facilities at existing state-supported institutions.[8] A few months later, the Pennsylvania State University announced that it would launch an external degree programme.[9] At about the same time the President's Task Force (1971) on the Extended University at the University of California recommended the development of a "part-time" degree system which had some of the elements of an open university programme.[10] The California state college system is also developing plans for encouraging opportunities for part-time study and for some of the changes in degree structures recommended by the Commission in *Less Time, More Options* (1971).

Another important development in early 1971 was the joint announcement of the College Entrance Examination Board and the Educational Testing Service that they were establishing a 21-member national Commission on Non-traditional Study to review opportunities for college-level learning outside of school and make recommendations concerning the recognition of such study, including the awarding of external degrees in the United States.

Somewhat different in concept was the programme for the development of "universities without walls" which was announced by the U.S. Office of Education in late 1970. Under this programme, planning and pilot grants totalling $365,000 were awarded to 17 colleges and universities for experimental programmes that would do away with the tradition of a fixed campus and a fixed-age student body. Students would enrol at particular institutions sponsoring the programme, but regular class work would be "mixed with large doses" of non-campus learning experiences, including research assistantships, internships with government and social agencies, travel or service abroad, independent study, and other kinds of field work and seminars. Each institution would form an "adjunct faculty" for the programme, which would include government officials, businessmen, scientists, artists, and other professionals outside the academic community.[11]

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[8] *Chronicle of Higher Education*, April 26, 1971.

[9] *State College & Ballefonte Pa. Centre Times*, April 5, 1971.

[10] The Task Force reported that part-time degree programmes were already operating at Harvard, Columbia, Syracuse, Claremont, the University of Chicago, the City College of New York, and Brooklyn College.

Meanwhile, strong interest was being displayed at many institutions in improving opportunities for students to stop out or to combine work experience with part-time study. In the spring of 1971, it was reported that 125 Yale students, 51 Radcliffe students, and 1 out of every 15 Harvard students were on "leaves of absence".[12] Hobart and William Smith Colleges announced a plan for deferred entrance, as did Beloit College,[13] and a good many other institutions were reported to be developing deferred entrance and/or leave of absence policies.[14]

It is obviously much too early to do more than speculate about the extent to which these innovations will change future patterns of participation in higher education. No doubt many college-age persons and older adults will welcome the opportunity to participate in the open university type of programme, while some college-age persons will take advantage of improved opportunities for stopping out and returning later. But there will almost certainly continue to be many college-age young people who will desire the campus experience—the experience of "going to college", of associating for a prolonged period with college friends of their own age. And many will continue to want to attend college away from home to "get out from under" parental influence or domination.

If stopping out and part-time study are to be encouraged, employers will have to co-operate by reversing the trend toward requiring a college degree for increasing proportions of jobs.

[11] The institutions participating were the Antioich College, Bard College, Chicago State College, Friends World College, Goddard College, Howard University, Loretto Heights College, the University of Massachusetts School of Education, the University of Minnesota, New College at Sarasota, Northeastern Illinois State College, Roger Williams College, Shaw University, Skidmore College, the University of South Carolina, Staten Island Community College, and Stephens College.

[12] *New York Times*, May 24, 1971.

[13] *Chronicle of Higher Education*, Jan. 11, 1971.

[14] *Ibid.*, May 3, 1971.

This will not be altogether easy, because the trend is attributable in part to the increase in the relative importance of jobs requiring professional or technical training and not entirely, as is sometimes loosely suggested, to increasing use of a bachelor's degree as a form of "certification".

To some extent, also, stopping out and returning to higher education at a later point runs counter to the normal life cycle as it relates to marriage and child-bearing. It is easier to finance a college education when one is single or married without children than when there are young children to be cared for and supported. Thus, if existing patterns are really to change greatly, new forms of financing higher education for adults, such as the "educational security" programme recommended by the Commission in its report *Less Time, More Options*, will be required.[15] Another possibility is the development of a sabbatical year as a new form of fringe benefit. There are already provisions for accumulating the right to a given paid period of weeks or months away from the job on the basis of years of service in some collective bargaining agreements, such as that of the steelworkers, but these are not related to programmes for participation in higher education. It would seem quite feasible to develop sabbatical provisions under which an employee could accumulate the right to paid time away from the job provided he used the time to participate in higher education.

Whatever the uncertainties surrounding the future development of the innovations discussed in this section, the Commission believes that they should be encouraged by institutions of higher education, with substantial financial support by government agencies and private foundations. The recent steps in this direction are very encouraging.

The Commission reiterates the recommendations that were

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[15] The "educational security" programme would take the form of a new benefit under the social security system—the right to two years of benefits for the financing of higher education, to be paid through payroll taxes on employers and employees, with the benefits to be available on application after a period of sustained employment. See Carnegie Commission on Higher Education: *Less Time, More Options*: *Education Beyond the High School*, McGraw Hill, New York, 1971, p. 21.

made in its report 'Less Time, More Options', to encourage more flexible patterns of participation in higher education.

The Commission also recommends that state and federal government agencies, as well as private foundations, expand programmes of support for the development of external degree systems and open universities along the lines of programmes initiated within the last year or so. It will also be important for governmental bodies and foundations to provide funds for evaluation of these innovative programmes as they develop.

University Without Walls

The American pattern mentions 'the university without walls' and it is being experimented by a few colleges and universities inspired by the fervour of the 1970's, illustrated in the reports of the Carnegie Commission, viz., *a chance to learn*: *an Action Agenda for Equal Opportunity for Higher Education* (1970); *Less Time, More Options*: *Education Beyond the High School* (1971) and *Any Person, Any Study* by Eric Ashby (1971) and *New Students and New Places—Policies for Future Growth and Development of American Higher Education* (1971).

Several studies indicate that the new kinds of students are enabled to get into the mainstream of the system if they are provided with new skills in relation to developments in technology and science. These institutions need not have separate buildings, for the existing buildings, university and public libraries, laboratories and museums, and the new media of communication like broadcasting and television could all be employed. Besides there is a great deal of education in life itself which can be organized through seminars, debates and discussion with one's peers. The organized pattern for this is the 'university without walls' and it has been explained by the Union of Experimenting Colleges in the U.S.A. in the following way:

"The university without walls is an alternative form of higher education. It seeks to build highly individualised and flexible programmes of learning and makes use of new and largely untapped resources for teaching and learning. It moves towards a new faith in the student and his capacity for learning on his own, while at the same time providing close and continuing contact between the student and the teacher. It redefines the role of the teacher as a facilitator or coparticipant in the planning and design of the student's learning experience, and it seeks, through its inclusion of a new mix of age-range (16 to 60 or older), to build a new dialogue and trust between younger and older persons." In this system there is no prescribed curriculum or uniform time schedule for completing the degrees. A student is declared to have graduated when he has achieved the learning objectives agreed upon with his teacher or advisor and there is no restriction of the number of years during which he may complete the objectives.

Indian Conditions

It seems to us that the open university of the British type organized at the instance of the government is unsuitable for our country with its vast numbers and the distribution of the universities among different states with different types of administrative machinery.

To have an open university in India of the type of the U.K. is financially not feasible and academically an uphill task. The Open University of the U.K. gets grants from the U.K. Government and not the U.G.C. In the year 1972 alone the University received £8 million, i.e., about Rs. 16 crores, for current expenditure and a further grant of £8 million for capital expenditure. The fee for each student is £200 per annum or Rs. 4,000 for the ordinary degree course and £250 or Rs. 5,000 for the honours course. The fees include cost of summer schools organized by the University. Such investment and such high fees are beyond our national capacity.

The major problem in India, however, is that academically a central national university will have many problems of providing courses in different languages. If they take up English and Hindi as two languages in which courses can be constructed, it will create opposition from West Bengal and the southern states. A multi-language approach will be administratively top-heavy and impracticable when the regional universities could do the same work. If only English is adopted it will have opposition from the Hindi-speaking states and many others. During the last 15 years having encouraged Indian languages at the university level, many students have lost the power of expression in English. They can hardly use it even as a library language, much less as a language of communication. This is the case with a large section of students or at least of students to whom the open university is to cater.

Correspondence Courses—A Farce

An article on Open University by Dr. Amrik Singh appearing in *University News* of August 1973 points out the fraud of the correspondence courses as an academic enterprise. He has stated that through correspondence education a university—he presumably refers to Delhi University—has been able to accumulate Rs. 20 lakhs as surplus in 10 years and the response sheets from students indicate that while in 1964-65 percentage of response sheets received back was 22.14, in the year 1968-69 it was 8.5 and in the year 1972-73 it was 5.8. This shows a declining curve, with the rising numbers. Students do not seem to take the lessons posted to them seriously. This is a mockery of the very essence of teaching by correspondence. How do we expect, therefore, correspondence courses to be successful in an open university? At the same time, correspondence courses are the bedrock of the planning of the Open University in the U.K. where the response is 80 per cent. The summer school programme in the U.K. is attended by 80 per cent to 90 per cent of students, while the personnel contact programme of Delhi University was attended not even by 10 per cent of the total enrolment. Dr. Amrik Singh thinks, "Correspondence education in every university in India becomes, in ultimate analysis, something faceless, soulless and anonymous."

Indian Universities Already 'Open'

But the most significant fact is that today quite a number of universities in India have already become 'open universities', in the sense that students are allowed to appear privately and they follow the syllabus prescribed for the examination by reading cram books and bazaar notes. The M.P. universities have provided in their amended Acts (1972) for students appearing privately for all undergraduate courses including science with the proviso that the science students must do minimum practicals prescribed by the university in a recognized college. The universities in M.P. have apparently liked the statutory provision, for the colleges are no longer overcrowded by indifferent students, e.g., the Holkar College of Science, Indore, which had about 2400 students on its roll earlier had only 1300 students after the announcement of the government policy. Secondly, private students appearing in this way have given a large income to the universities by way of examination fees which was welcomed by them because the government has been very tardy or negative in payment of required maintenance and development grants to the universities. The University of Poona allows students to appear privately and formerly they were required to take one more year for completion of the course than the normal academic duration. But now this condition has been removed. Universities that have introduced correspondence courses for degrees similarly are open universities for private students and though only a small percentage of students respond to postal courses seriously most of them depend on private study and guide books, for want of any other technology of learning.

Students like this arrangement, for those employed can take prestigious degrees and in any case they have discovered that there is not much teaching done in colleges today and they can study privately for minimum requirements. They do not have to pay college fees for what they regard as fun of attendance and not learning. Besides there are any number of commercial coaching classes and private tutors to help them.

Germ of Growth

There is the germ of growth of the concept of an open university in most of these universities, in the sense that a large number of students utilise the library facilities provided by the university. The University of Indore where the university library facilities were kept open for all private students on the payment of a small fee had a very large number attending the library and very often the reading rooms were so overcrowded that there was no sitting space. So improvised arrangements had to be made for larger numbers. The students also demanded the library to be kept open early in the morning and late in the evening, which was done. This indicates that there is an urge to learn and prepare for examinations. With this motivation, organized efforts can be made by the introduction of special reading courses, special lectures, seminars, tutorials and effective correspondence courses.

Suggestions for Indian Conditions

Suggestions in relation to the practical organization of higher education for students appearing privately at university examinations in the manner of an open university would mean that a select few universities in each state should provide facilities to students appearing privately, with organized self-study courses as in the U.S.A. The students would register themselves at the beginning of the session and the university, apart from conducting effective correspondence courses, if possible, can charge a fee for allowing the students to use the university library and laboratory and arrange for guided reading and employ modern methods of tuition and guidance.

This does not cost anything to the University as the fees paid by the students cover the expenses of any programme; in other words, the programme of such an open university should be made financially self-sufficient and the government or the U.G.C. may only pay nominal grants for capital purposes such as increase in library reading seats, books and equipment.

There should be a coordinating body like the Central Council of the British Open University at the centre which should be a clearing-house for various academic problems of this arrangement and they should make recommendations and suggestions which should be followed up in the universities systematically.

It may be useful to make one or two universities in each state "open" in this way to start with; the number will depend on the facilities that they can offer. Regular teaching will then undergo a great revolution and problems of indiscipline to a large extent will be minimized, if not eliminated.

In this context the seminar on open university organized by the Ministry of Education from 16 to 18 December 1970 in New Delhi is significant.[16]

Seminar of 1970

The discussion at the seminar[17] in December 1970 was very constructive and it was felt that the 'Open University' in India was almost imminent. But presumably bureaucracy has its ways and a survey of the existing facilities still remains to be done. But at the seminar, the Minister of Education[18] was so enthusiastic and keen about the open university that he even suggested that it should be enlarged in its scope to cover secondary education and other levels of education. The main argument was that education as an instrument of social change had to be developed through different administrative devices against shortage of finances and the open university could be a helpful experiment. It was viewed by the seminar, first as an institution of higher education for independent mature learners; second, it provided higher education to masses who could not have got any such opportunities otherwise. Third, it required less resources and was deemed to be economic and effective; fourth, it was a means of employing new and unconventional methods of instruction and exploiting new methods, providing an area for inventiveness and experimentation.

The open university would be less rigid than the conventional university. It can thus have the choice of the best in the curricula from all the existing universities in India and abroad.

The seminar which was attended by representative experts from the U.K. and the U.S.A. also was aware that the open university in the U.K. did not prescribe any admission requirements. It was meant for any adult, because the challenges of curricula themselves are the restricting factors. The seminar was of opinion that since the level of our school education was low, it was not yet time to make it completely open to anyone and therefore it was desirable that an entrance test or admission qualification should be prescribed.

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[16] The author was invited to attend the seminar. This however is based on the mimeographed minutes of the recommendations at the seminar.

[17] Based on mimeographed papers of the seminar.

[18] Dr. V. K. R. V. Rao was the Central Minister of Education in 1970.

Organization of Open University

A point that was not considered by the seminar was that in India where the percentage of failures at all examinations is much higher than in the U.K. (in the U.K. it is hardly 10 per cent against 50 per cent to 60 per cent in India), it was possible that these improperly schooled students will fill places in the open university for years to come. Some admission qualification may have to be indicated but this may not be made rigid on the basis of previous academic achievement. It is possible that in the interview the student may appear promising and if admitted let him be controlled by the compulsions of the curriculum.

It was found in the U.K. that in the beginning a large number of teachers and women were candidates for the open university. This is just what would happen in India.

In the U.K. the science students are provided with an experimental kit at home for the study of natural and applied sciences. It may be desirable to have similar facilities provided in India subject to availability of resources. The courses provided by the open university in the U.K. are very broad and fundamental and everyone has to go through what they call the 'foundation courses' for the general or honours B.A. degree. (They give the B.A. degree to all whatever subjects they decide to specialise in because the word 'arts' is used in its generic sense.) The foundation courses offered in 1972 were in arts, mathematics, science, social sciences and technology. The curriculum for these courses is very interesting as well as the prescribed texts. In the technology course analysis is done of the man-made world and in social sciences the main emphasis is on understanding society. Similarly, in science and mathematics the stress is on understanding subjects as applicable to one's life and the work one does in society. Thus there is scope for introducing new knowledge useful to the citizens as well as to the professional men with new types of curricula, so that one can deviate from the trodden and often worn-out path of the conventional university.

In fact, the courses, syllabus and text-books brought out by the 'open university' of the U.K. would revolutionalize the routine methods in other universities and are particularly useful to Indian conditions. The new way of text-books writing and courses of study would motivate the students and inspire teachers to write books with innovative designs.

Coaching Classes

The methods employed by the open university in India would take note of the methods employed in the U.K. and the U.S.A. and also the conditions which obtain in India like a number of private coaching classes today which train students, both regular and private, for university examinations. These institutions which are private enterprises should be brought under any scheme of open university as institutions which do not cost the government anything but for which the beneficiaries pay and support the profit-making concerns. The way in which these institutions can be brought under the wing of the open university will need a fuller analysis of the need they supply and the student's discipline they provide as well as of the motivation of the students.

Scheme of Work

The problem for us is capitalising the existing conditions somewhat on the following lines.

The students who want to appear privately in an open university should enrol and register themselves in a university. At the outset there should be at least one or two selected universities in each state which could provide open university facilities.

The university and public libraries should be kept open to these students charging a small fee for the purpose. The university libraries should be kept specially open from 7 a.m. to 10 p.m.

The science laboratories and museums of the university and colleges should be made available to students guided by teachers or tutors specially appointed for the registered students.

Correspondence courses can be arranged if responses from the students are guaranteed. But more important than the correspondence courses are special courses of lectures provided for these students in the evening in the form of a compressed series, on a particular topic, i.e., where there are 10 to 20 lectures offered in a regular course there could be 3 to 5 indicating guidelines of the course of study and suggesting a good deal of reading at home and in the library as well as written work, to be checked by an appointed tutor.

An intensive contact course of 3 to 4 weeks could be organized by the university or the colleges and a special fee charged for the purpose.

Special seminars, tutorials, conferences could be arranged.

Sports facilities of the university and colleges should be made available to the registered students. If there are administrative difficulties an age-limit of eligibility for competitions could be introduced.

Socialising influence of the university and colleges should help the students who participate in the academic life and provide motivation for studies and examination.

University libraries should also have a cafeteria with provision for subsidised lunches or snacks for these students as well as for regular students and the Students' Homes provided by the UGC in a number of universities and colleges should be thrown open to these students with any special facilities that could be offered to them.

Audio-visual aids like films, slides, tapes, radio broadcast, television should be provided with necessary accommodation in the colleges and the students should be specially enrolled for the purpose.

An academic programme could be organized in this manner in advance for the information of the students as is done in the U.K. open university.

The important elements of an academic programme are thus included in the teaching programme for students in the open university. Special tutors and teachers have to be appointed, who are also inspired by the zeal of working for the students. There may be a few students who are employed and many others who may not be employed all of whom have to be guided by the special tutors.

Summer schools and group guidance at selected places scattered all over the country with part-time service of regular teachers of the university should be made available. Thus the open university is not confined to the university campus, it spreads over the whole country wherever there are colleges and where facilities of the type described above can be made available. For this purpose administratively a network of regional offices may have to be organized under the coordinating council at the centre.

Finance

It is suggested that the scheme of open university could be made self-supporting, i.e., the fee income should cover the expenses of tuition and guidance specially organized for the students. If necessary, the government can, of course, assist with grants of not more than 10 to 20 per cent of the total recurring expenditure. Capital expenditure on buildings, audio-visual aids, equipment, books, journals, and any other items, such as students' homes, facilities for sports, etc., should be provided by the central government on a cent-per-cent basis.

In teaching modern methods developed by educational technology as in the U.K., the U.S.A. and other countries can be employed. In the U.K. open university, there is a special department of educational technology and it is possible to develop similar facilities in India in a central organization under the proposed advisory council, so that learning by rote is replaced by methods where students themselves learn through self-study and a bit of guidance. Immediate requirement for the purpose is an appointment of a central council which should represent those universities that would participate in the programme along with a few experts and a machinery for planning the programme, through a permanent secretariat. This council has to be placed in the proposed Ministry of Higher Education.

CHAPTER X

THE UGC AND THE CENTRAL RESPONSIBILITY

Introduction

The concept of a UGC for Indian universities was first thought of and recommended by the Central Advisory Board of Education (Sargent Report, January 1944). While discussing the importance of Inter University Board established in 1925, they said, "it is a purely advisory body and does not possess authority which would enable it to coordinate university development in the ways or to the extent which a national system will require."[1] The Sargent Report also pointed out that the IUB would not be able to restrain unhealthy and uneconomic rivalry between universities in regard to the new developments, prevent the creation of new universities, or to counteract the provincial outlook which puts obstacles in the way of students seeking facilities for study which are not available in their own areas. But more than that they did not have any power of the purse. Therefore, they recommended that there should be a University Grants Committee under the control of the central government and felt that "the financial implications of educational reorganization may ultimately make it desirable that the central government should relieve provincial government to a large extent of a financial responsibility for university education".[2] This implied provision by the central government of both maintenance and development grants to state universities like they do for the central universities today. They recommended a University Grants Committee on the lines of the British pattern which should be constituted by statute and should consist of a few eminent persons not directly engaged with the government whether central or provincial or any particular university though for obvious reasons it was desirable that they should have considerable experience of university administration. Its main function was to exercise general supervision over the allocation of grants to universities from public funds with the object of ensuring that universities are in a position to meet the demands which may be made upon them. To enable them to plan programmes of development financial assistance from public funds should take the form of "block grants" for a period of years. It was not proposed that the provincial government should cease to make grants direct to their local universities unless they preferred to do so through the proposed university grants committee. It was, however, suggested that when a provincial government desired to make a grant to a university for any substantial new developments, it should first consult the University Grants Committee. All grants to universities for new developments by the central government were to be made, it was recommended, through the University Grants Committee.[3]

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[1] *Sargent Report,* Third Edition, 1944, p. 27.

[2] *Ibid.*, p. 27.

This recommendation was implemented only for central universities from 1945 to 1953. After our Independence (1947), the Radhakrishnan Commission's recommendations were available in 1949 which also recommended the establishment of a UGC almost in the same way as the Sargent Report. In 1953 an *ad hoc* university grants commission was first appointed by the Government of India by notification and later in 1956 the UGC Act was passed by Parliament.

The Radhakrishnan Commission like the Sargent Report[4] recommended the device of block grants to all universities in India by the UGC. To make one body responsible for all universities in India for development and maintenance was a very healthy suggestion. However, this was never acted upon after Independence. The present UGC does not follow this procedure except for central universities.

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[3] *Ibid.*

[4] Sargent Report, *ibid.*, p. 27.

UGC—A Commonwealth Device

The University Grants Commission which functions under the University Grants Commission Act of Parliament, 1956, as modified in 1970 and 1972 by the Parliament has gained in academic prestige over the last 20 years of its functioning.

It is a commonwealth device started with the establishment of the University Grants Committee in the U.K. in 1919 when, after World War I, the financial stability of universities was causing great anxiety to the U.K. Government and the Treasury established a Standing Committee with the title University Grants Committee to enquire into the financial needs of university education in the United Kingdom and to advise the Government as to the application of any grants that may be made by Parliament towards meeting them. Similarly the University Grants Committee was established in New Zealand in 1961 which functions as a central organization to negotiate with Government the grants necessary to meet the financial needs of the four autonomous universities in New Zealand and two university colleges of agriculture. The Australian Universities Commission was established under the Act of 1959 and the functions of the Commission are to furnish information and advise the Minister on matters in connection with grants by the Commonwealth of Australia and the states to universities established in Australia. The University Grants Commission in Ceylon was established in 1962 for the same purpose and thus it will be seen that the unique British institution of 1919 has had different copies in other countries with local variations and everyone engaged in higher education in Britain as well as in India and other Commonwealth countries today is familiar with the working of this institution.[5] In the U.K. it serves not only as a link between the Government and the various academic institutions but also as a strong force of academic strength to support the financial and other needs of the universities. But the Indian UGC has more problems because of the federal form of government where states administer the universities, except the central ones.

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[5] See *Commonwealth Universities Year Book*, 1963.

The British U.G.C.

A brief account of the development and functions of the British U.G.C. might be interesting in this context.

The British UGC continued to advise the U.K. Government regarding Parliamentary grants to universities from 1919 to 1946 in a routine way. After World War II, the situation had changed materially as university education in relation to modern social and economic needs had become increasingly important to the state both in respect of the output of trained manpower and of research. At the same time the universities had become increasingly dependent on state funds. In 1946 the terms of reference of the British U.G.C. were revised. The Committee were required to enquire into financial needs of the universities but they were also required, "to assist in consultation with the universities and other bodies concerned the preparation and execution of such plans for the development of the universities as may from time to time be required in order to ensure that they are fully adequate to national needs".[6]

Over the last 25 years the UGC in Great Britain has recognised national needs as an important factor in the development of the universities. These needs have become more significant after the turn of the mid-century, i.e., particularly after the British White Paper on Technical Education in 1955 and the Robbins Report on Higher Education in 1961-63.

The British UGC is not a statutory body though it spends very large sums of public money. In 1971, it had been distributing more that £200 million a year (that is about Rs. 400 crores) among 44 universities in the U.K.[7] as against about Rs. 30 crores (£15 million) that the Indian UGC did the same year among about 80 universities.[8] The functions of the U.K. UGC were advisory to the Chancellor of the Exchequer who appointed the members of the Committee after consultation with the Minister of Education and the Secretary of State of Scotland, as the Committee covers

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[6] *Ibid.*

[7] Wolfenden, Article in *Higher Education from Autonomy to Systems*, Perkins, (Ed.), p. 139.

[8] *UGC Report*, New Delhi, 1971-72.

England, Scotland and Wales. The position has slightly changed because the University Grants Committee of U.K. has now been brought under the Secretary of State for Education and Science in the British Cabinet on the recommendation of the Robbins Committee Report. But still it has no statutory authority like the Indian UGC, which has certain advantages and some limitations. On the one hand because it has no statutory authority the committee's terms of reference can easily be modified and enlarged without having to go to Parliament and the size of the committee can always be changed. On the other hand not being a statutory body, too, much has to be left to well-established conventions and not the guidance of the law of Parliamentary Statutes. Today the Minister of Education is responsible to Parliament for the activities of the committee.

The following paragraph from the Robbins Report would give an idea of the position of the British UGC in 1963: "para 727. Fortunately, this country seems to have hit upon an administration invention that, although not precluding all such dangers, has the effect of making them much less probable—the device of interposing between the Government and institutions a committee of persons selected for their knowledge and standing and not for their political affiliation. In this way it is possible to ensure that the measure of co-ordination and allocation that are necessary are insulated from inappropriate political influences. This device is exemplified in the present arrangements for the famous University Grants Committee, and the principles it embodies are best explained by a description of its constitution and its mode of operation".

Composition of the British UGC

At present there are 20 members of the British UGC with one full-time chairman. Others are individuals who give 1/5th of their working time for a small fee to the work of the UGC. Some members come from industry or commerce or non-university parts of the educational system. "But a clear majority of them are practising university professors, representing all the main subject fields and, as far as possible, the main geographical areas of the country. They do not, and this is important, represent their particular universities; but collectively they know intimately, from the other 4/5th of their working time, both the atmosphere of the university world and the likely effects on that world of the decisions taken by the UGC. They are, please note, professors, not administrators. No university Vice-Chancellor or registrar or secretary, may be a member. I tell my academic friends that to become a member of that committee is the kiss of death. In no time they will be made Vice-Chancellors, and then they will have to resign from the committee."[9]

It is a curious system of the British UGC that it is difficult to suspect that the dozen professors on the committee might show a degree of favour toward an institution in which they happen to be personally interested. "I have had a fair amount of experience with boards, and councils and commissions and committees. I can honestly say that I have never known any place where decisions were taken more responsibly or more objectively than round the table of the University Grants Committee. I am not, of course, suggesting that the decisions were always right, but they were always as objective and responsible as human decisions can be."[10]

Officers

There are a few businessmen as members of the British UGC, who are respected for their views on all matters. Besides the members are supported by a small but very high quality staff of senior civil servants deputed from Career Civil Service and specialists like architects and quantity surveyors. The difference between the Indian UGC and the British UGC lies here that the Indian UGC does not have today career civil servants transferred from the Ministry of Education or the departments of education of state governments on deputation or from other Central Ministries, nor do they have architects or surveyors to help the universities.

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[9] Sir J. F. Wolfenden, article in *Higher Education from Autonomy to Systems*, J. A. Perkins (Ed.), p. 134. Wolfenden was a former Chairman of the British U.G.C.

[10] *Ibid.*, p. 134.

If an officer has to spend a whole life-time in the same office without much knowledge of other work in other departments of government his sharpness is likely to get blunted and very often he finds the work lacking in freshness and hence boring and frustrating.

"All the members of the UGC (U.K.) are appointed by the secretary of state for education and science; so there could be a suspicion that in some sense or other appointments were political. I can assure you that this is not so. I myself was appointed by a conservative government, I served under governments of both parties and under a bewildering succession of ministers and secretaries of state. At no time was the question of my party affiliation ever mentioned—which is just as well, because I do not know what my answer would have been."[11] When there is change in the government the officers and the members of the committee do not change as they would in the American system of government.

Procedure of Work

An outstanding feature of the British system is that while scrupulous examination is done of the requirements of universities in relation to new developments and commitments, financial analysis of requirements is carried out by the UGC office in exact detail in each year of the five-year period for which a block grant is given to the university. The 44 universities send returns to the UGC in full details and it is the business of the UGC to exercise academic judgement about each of the universities concerned as to how much should be allocated to each of them.

The procedure in the British UGC is that the officials of the UGC sit down with the officials of the Department of Education and Science and go through the returns "page by page and line by line".[12] "The real purpose of these hard working sessions is that the department officials should thoroughly understand not only the figures which the committee has put to them but also all the arguments on which these figures are based."[13]

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[11] *Ibid.*, p. 135.

[12] *Ibid.*, p. 136.

[13] *Ibid.*, p. 136.

Once the procedure of going to Parliament for grants has been gone through after rigorous examination, the British UGC informs the universities about the block grant that would be available to them for the next five-year period. But no details are given. "The original submission from the university was detailed, the allocation to the university is a block grant, with no detail at all. This is an essential and cardinal element in the whole system. It means that inside the total sum the university is free to deploy the money it chooses. In its own internal annual budget it can decide itself how much to spend on the library, how many teaching and technical staff to employ and how much to allocate for maintenance and buildings and so on. This freedom within the budgetary total is as nearly complete as any freedom in this world can be, and it is genuinely appreciated by the universities. In a word, the UGC does not run the universities; it tries to provide them with the resources to run themselves."[14]

This is an important element of the work of the British UGC which is not followed by the Indian UGC. For in the allocation of development grants for a five-year period to the universities, the Indian UGC stipulates the number of professors, readers and lecturers that should be appointed along with the amount of grant. A grant is never sanctioned to the university without details of how the amount is to be utilized with the need for utilization certificates. This is partly because it is only a development grant and not a block grant. The result is that any change in the sanction of the UGC which the university would like to do would involve further correspondence with the UGC for their approval for the change. Normally this could be interpreted to mean that the British UGC treats the universities with much more confidence in them and their ability to use the block grant properly. The Indian counterpart does not give block grants to the state universities and on the other hand development grants are allocated in detail like many government sanctions creating a greater field for the auditor to ask questions whether the grant has been utilised for the purpose for which it was made.

The British UGC has six standing sub-committees—for agriculture, medicine, dentistry, science, technology and veterinary science—to which the main committee can refer the specific points for their guidance. These sub-committees are appointed by the main committee and contain one or two committee members and additional members from the universities, industry or professions as required. The main committee meets monthly and the sub-committees meet as and when required to report to the main committee. Besides the sub-committees there are occasional or *ad hoc* sub-committees to report on specific problems.

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[14] *Ibid.*, p. 138.

The Indian counterpart does not include Agriculture, Medicine and partly Technology and has to deal with a truncated part of the university system of science, commerce and arts including social sciences and cannot really get a comprehensive picture of all Indian universities. Its field of action is being further reduced by the creation of separate councils for giving grants, as those for social sciences, philosophy and history. Even science is getting involved into another Ministry. Thus functions of the Indian UGC have no freedom of action for all university disciplines that the British UGC enjoys.

The official staff of the U.K. UGC consists of a Chairman, a Secretary, a Deputy Secretary, two Assistant Secretaries and a Principal who are administrative and executive in their functions. The three architects and a quantity surveyor mentioned earlier have advisory functions of increasing importance with the increase in the committee's capital expenditure. The total staff including other staff is about 30 and the annual cost of the staff of the committee was in 1962 £47000 when they were responsible to distribute about £55 millions a year. The Committee's relations with the universities are intimate, personal and informal.[15]

The Indian U.G.C.

Some comparisons of the Indian UGC and the UK UGC have been inserted in the above account. The Indian UGC has to work in a different setting because of our constitutional obligations where states are responsible for education and the Centre has powers under entries 65 and 66 (list I) of the VII Schedule of the Constitution. Entry 66 makes it a central responsibility for "co-ordination and determination of standards in institutions for higher education or research and scientific and technical institutions". Entry 66 really shows that the Constitution-makers have taken a far-sighted view of the future of higher education in India. Out of this came the functions of the University Grants Commission stated in Section 12 of the U.G.C. Act 1956 that "it shall be the general duty of the Commission to take in consultation with the universities or other bodies concerned such steps as it may think fit for the promotion and co-ordination of university education and for the determination and maintenance of standards of teaching, examination and research in universities" and for the purpose of performing its functions, under this Act the Commission, was required to take such action as enquiring into the financial needs of the universities and allocating and disbursing funds.

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[15] Annual Report of the British UGC for the year.

A provision made in the Act is that out of the fund of the Commission the Central Universities of Delhi, Banaras, Aligarh and Vishwa-Bharati and others established recently will be given maintenance (block grants) and development grants and grants for any other general or specified purpose and the other state universities will be granted funds necessary only for development or for any other general or specified purposes. This has been modified by the UGC Act of 1972 explained later.

The statutory provisions in the UGC Act make it difficult to do what was recommended by the Radhakrishnan Commission[16] or the Sargent Report when they said that the maintenance grants of all universities could be paid by the UGC. The idea of the Radhakrishnan Commission like the Sargent Report was that the Centre should take active interest in the maintenance and development of the universities in the country. The obvious implication was that all universities were to be considered as national institutions and the Centre and the states in co-ordination should appropriately assist them in all possible ways.

In actual practice however what the Sargent Report and the Radhakrishnan Commission meant is different from what the present UGC does. This point was probably in the mind of Parliament when they appointed the Sapru Committee on Higher Education[17] in the year 1963 with the following terms for reference:

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[16] *University Education Commission*, 1949, pp. 407-412.

(a) To examine the provision of the Constitution regarding the responsibility of the Central Government in the field of higher education with a view to finding out the extent to which the Centre could assume greater responsibility in this field; and

(b) To suggest appropriate steps to be taken for the purpose.

The constitutional difficulty was considered by the Sapru Committee and they came to the conclusion that the universities and higher education be transferred from the state list to the concurrent list retaining intact entry 66 in the Union list. They said that under this arrangement state governments will continue as at present to be responsible for the maintenance of the universities but the Central Government can have the concurrent powers of legislation.

It is possible to think that the present arrangement without recourse to any legal modifications could work well if flexibility of the Constitution is interpreted in terms of what the Radhakrishnan Commission and the Sargent Report had said about both Centre and states assisting the universities together through the coordinating agency of the UGC according to resources at their disposal.[18]

Organization of the Indian UGC

With the amendments to the 1956 UGC Act in 1970 and 1972 the University Grants Commission consists of 12 members in all including a chairman and a vice-chairman instead of the earlier 9 members with a chairman only. They are appointed by the central government which is a great discretionary power of the Ministry of Education and the government machinery. Normally what the Ministry of Education recommends is accepted by the government. The chairman and the vice-chairman are not officers of the central government or any state government. There are two officers of the central government to represent them and normally they are the Education Secretary and the Finance Secretary. The advantage in having the Finance Secretary is in regard to the budget proposals of the UGC and the availability of expert advice on financial matters. The Education Secretary has to be there to avoid confrontation with government on any fresh problem and to smoothen the correspondence between the Ministry of Education and the UGC.

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[17] *Report of the Committee of Members of Parliament on Higher Education*, Ministry of Education, 1964 (Sapru Committee).

[18] U.C.R., *op. cit.*

In the British UGC while the members are appointed by the Minister of Education and Science, it is not necessary to appoint officers of the different ministries as members because the secretary and the deputy secretaries who are permanent civil servants are on deputation from the government to the UGC and though it has been stated that consistent with the British character these officers once appointed to the UGC show such loyalty to the organization that they carry on their battles with their old departments of Education and Science and also with the Treasury with zeal and fervour. This does not necessarily happen in the Indian UGC where the Ministry of Education normally agrees with the Ministry of Finance in pointing out to the UGC their helplessness in providing more funds. Besides another aspect in the Government of India is that for a 5-year period there are planned ceilings on financial provisions for development done by the Planning Commission which are flexible within the framework but are fixed in the total amount which is likely to decrease on account of the financial instability or shortfalls of resources rather than increase.

Government and the UGC

Moreover, very often the UGC (India) like the UGC (UK) is considered as a buffer between the universities and the government. This is not in evidence in the Indian UGC because by the force of circumstances they have to toe the line of the government and there are not any instances where the UGC has taken an independent line of thinking or approach not acceptable to the government. The advocates of the British UGC system have on the other hand said, "we believe that this is essential to academic freedom simply because we do not want to see direct influence by the government, any government, on individual universities. Of course, in the end any government may decide how much money it is going to provide for universities as a whole in competition with housing, hospitals, roads, defence and all the other claimants on the tax payers' money. This is a decision on priorities and such decisions are the proper function of governments. But it is not their proper function to decide how university 'A' shall develop or which studies university 'B' shall encourage or discourage."[19]

The Indian UGC, however, has not built up such an independent approach and apart from the fact that its officers are UGC servants and not those drawn from the central services (except in very rare cases) when compared with the British UGC, it does not have either the courage to displease the government or to take a highly independent and academic stand with the universities. This is inevitable for historical, political and economic reasons in which the Indian UGC finds itself.[20]

In this connection the following extract from Wolfenden's article is significant.

"More fundamentally, can the UGC guarantee that it is not subjected to political or governmental pressure? I have tried to give reasons why I think it is not: but I cannot prove it in a court of law.

"Perhaps this gets us down to the basic facts of life. The whole operation of the University Grants Committee depends on reciprocal confidence between 3 partners involved, the universities, the government and the UGC itself. If either the universities or the government ceased to trust the UGC the whole gossamer web of this "typically British", institution would collapse.

"In my days at the UGC we used to say, among ourselves, that we operated on the Principle of Equal and Opposite Unpopularity. If we are by any chance popular with the government, the universities would think that we were in the pocket of the government: if we are, by any chance, popular with the universities, the government would think that we were in the pocket of the universities. In real life there was no danger of either of these positions—we were equally and oppositely unpopular with both. And, if I may presume to say so, I think that in all the circumstances this amounts to a vote of confidence from both."[21]

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[19] Sir John F. Wolfenden, *op. cit.*, p. 139.

[20] See Rudolph, S. H. and Rudolph, L. I., *Education and Politics in India*, OUP, Delhi, 1968, quoted at p. 603 *et seq.*

It is difficult for the Indian UGC to arrive at such conclusions because there are other partners in the game. It is not only the central government, the universities and the UGC but in addition there are state governments and the Planning Commission. This makes the position of the UGC full of complexities. It is always unpopular with the Planning Commission which can easily be understood. But its unpopularity with the state governments does not help the state universities very much which are much more influenced by the policies of the state governments rather than those of the UGC.

In the federal Constitution of India therefore the British pattern of the UGC does not work. It will not work in the USA which is perhaps comparable with India in the federative units of states.

Other Changes in Membership

Out of the other 8 members of the Commission, not less than 4 are chosen from among persons who are at the time when they are so chosen teachers of the universities. The remaining 4 are those (1) "who have knowledge of an experience in agriculture, commerce, forestry and industry, (2) who are members of the engineering, legal, medical or any other learned professions, (3) who are Vice-Chancellors of universities or who, not being teachers of universities, are, in the opinion of the central government, educationists of repute or have obtained higher academic distinction".

The present membership (1974) does not include any Vice-Chancellor but there are representatives of technology, agriculture, scientific research, engineering and industry apart from three university professors.

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[21] Wolfenden, *op. cit.*, pp. 140-1.

By government rules the normal term for the office of the chairman is five years subject to an age limit of 65 and of vice-chairman three years. But it is renewable for another term and a person who has held office as any other member is eligible for further appointment as chairman, vice-chairman or other members.

The Government of India in the Ministry of Education have powers conferred by Section 25 of the UGC Act to make rules to provide for different matters of administration and execution of business in the UGC. The terms and conditions of service of members, age of retirement, disqualifications, salary provision etc., are regulated by these rules. In the same way there are rules for recruitment of the staff of the UGC provided by the notification of the Government of India. Regulations made by the UGC for conduct of their business have to be approved by the Government of India and there are rules and procedures about budget, annual report and accounts of the UGC approved by the government. This binds the UGC to the Government of India procedurally and executively.

Today the Commission is assisted by a secretariat with one Secretary, one Additional Secretary, two Joint Secretaries, Deputy Secretaries and others totalling to about 30 officers for scrutiny and executive work. This is supported by about 270 other secretarial staff and a few class IV servants. The total budget provision for the establishment in the UGC has been of the order of Rs. 21 lakhs in 1965-66 against the fund of the Commission of Rs. 15.63 crores for the year so that the establishment charges had been kept to the minimum of not more than 1.5 per cent of the budget.

Apart from the function of giving grants to universities there is a provision under Section 13 of the Act which gives the power to the UGC after consultation with the university to order an inspection of any department or departments thereof, to be made in such a manner as may be prescribed and by such person or persons as it may direct. It would be obligatory on the Commission to communicate to the university the date on which such inspection is made and the university shall be entitled to be associated with it. It will be open to the Commission to communicate to the university its views in regard to the results of such an inspection and it may after ascertaining the opinion of the university recommend to the university the action to be taken as a result of the inspection. The UGC has not found it necessary to use this power during the last 20 years.[22]

The power to withhold grants has been included in section 14 after taking into consideration explanations offered by the university. This has never been used.

Section 20 of the Act provides that the Commission would be guided by such directions on questions of policy relating to national purposes as may be given to it by the Central Government. The interests of the UGC are thus legally tied up to the policy of the Central Government and the government's point of view of national needs and national policy finds a proper echo in the working of the UGC.

Truncated University Disciplines

The UGC have generally agreed with the recommendations of the Sapru Committee regarding the expansion of the Commission, but have felt that this could perhaps be done when other subjects of medicine, agriculture, technology, etc., come under the responsibility of the UGC. At present higher medical education is with the Ministry of Health, higher technical education, except university departments of Engineering & Technology is with the Ministry of Education, and higher agricultural education with the Ministry of Food & Agriculture. Thus important and modern scientific sectors of higher education are outside the scope of the UGC and technical and agricultural education have been developed by the respective universities with direct assistance from the concerned Ministry.

The Sapru Committee said: "We have emphasised in our Report how education must be regarded as one integrated whole. Professional education cannot be completely divorced from general education. We therefore recommend that professional education including Medical (Basic), Agricultural, Engineering and

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[22] This has been pointed out by the *Estimates Committee of the Parliament, Hundred & Second Report,* (Third Lok Sabha, Chapter I, pp. 1-22. See also *Sapru Committee Report.*

Law should also come within the purview of the University Grants Commission". However, this has not been acted upon and the Education Commission have, while supporting the recommendation of the Sapru Committee[23] compromised their function by recommending "UGC type organizations for agricultural, engineering & medical education and to create a machinery that effectively coordinates them".[24] This has not been practicable so far.

State Governments and the UGC

The Sapru Committee[25] have stated under recommendation 12 of Chapter X that there have been occasions when a State Government has not consulted the Commission before setting up a university. They, therefore, recommended that the University Grants Commission Act should be so amended as to make it obligatory on the part of a State Government to consult the Commission before setting up a new university. They also felt "that this change cannot be effected if education is not made a concurrent subject". In actual practice over the last ten years conventions seem to have been established that State Governments consult the UGC before setting up a university and the other convention is still to be established that when a bill is being placed before the State legislature it would be desirable for the State Governments to have discussions at the appropriate level with the Ministry of Education, Government of India, and the University Grants Commission. However, the amended Act of 1972 now gives this power to the UGC.

Difficulties of the UGC

The significant provisions of the Act of 1956 have been discussed already but these were found to be inadequate by the Sapru Committee (1964).[26] One of their recommendations was that higher education should be in the concurrent list[27] of the Constitution and not in the state list retaining entry 66 intact in the union list. Government did not act on this recommendation and the Education Commission (1966) felt that under the present arrangement there were enough powers and flexibility for the UGC to maintain the standards.[28] They said: "the inclusion of education in the concurrent list may lead to undesirable centralisation and to greater rigidity in a constitution where the greatest need is for elasticity and freedom to experiment. We are convinced that there is plenty of scope, within the present constitutional arrangement to evolve a workable centre-state partnership in education and that this has not yet been exploited to the full.[29]

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[23] *Sapru Committee, op. cit.*, p. 45.

[24] *REC*, p. 344.

[25] *Report of the Committee of Members of Parliament on Higher Education*, Ministry of Education, New Delhi, 1964.

[26] *Ibid.*

The Sapru Committee had also suggested that the system of matching grants was not a success and the centre should give grants more liberally. This has been acted upon by the UGC as a half-way measure and for a five-year period for the post-graduate departments they give cent per cent development grants to the universities since the Fourth Plan, but not for all schemes.

The logical conclusion would be what the Sargent Report had said and the Radhakrishnan Commission had hinted that the UGC or the Central Government should give block grants to all the universities of India on some specific principles pooling together if possible the resources of the states and the Centre, but as this now seems to be difficult under the present procedures, the Central Government should develop and maintain all Indian universities in consultation with state governments and the states should, to that extent, be made more responsible to maintain and develop primary and secondary education. This appears to be feasible without modifying the constitution, even under item 66 of the I list of the VII Schedule of the Constitution.

We have pointed out that there is no coordination today in the system of higher education because UGC does not deal with all the subjects and the Inter University Board (now Association of Indian Universities) has not been equipped to do any research studies and advise the UGC and the government in such manner as to enable them to be critical of the university system.

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[27] *Ibid.*, p. 44.
[28] *REC*, p. 453.
[29] *Ibid.*, p. 453.

The only organization which could coordinate higher education in all sections in India is a Ministry of Higher Education with a Central Advisory Board of Education. But for the last 25 years this Board has become a weak body and with the proposed Ministry of Higher Education it could be strengthened to help coordination and flow of information.

The comments in *Education and Politics in India* by Susanne H. Rudolph and Lloyd I. Rudolph[30] explain the position developed above and draws our attention to the helplessness of the UGC as it functions today in improving standards.

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[30] Rudolph, Susanne H and Rudolph, Lloyd I., *Education & Politics in India*, O.U.P., Delhi, 1972, pp. 72-80.

CHAPTER XI

COORDINATION OF HIGHER EDUCATION IN A FEDERAL SYSTEM

In what follows we shall consider aspects of importance in relation to the responsibility of the Central Government and the inadequacy of the UGC to participate fully in the national programme for dealing with the problems of coordination of higher education in India. These points are:

(1) The working of the UGC,
(2) University and student costs,
(3) British and Indian procedures,
(4) Allocation of funds,
(5) Planning procedures,
(6) UGC in a Federative Government,
(7) British model not applicable,
(8) The system of block grants,
(9) Conclusions and suggestion for reorganization.

1. *The Working of the UGC*

The administrative and executive work in the UGC can be compared with the work in the Education Ministry or any other ministry of the Government of India except that it has got a certain financial autonomy in spending the amount within the budget decided by the government. It is not directly answerable to Parliament. The Ministry of Education answers questions on behalf of the UGC. Its various committees have enjoyed so far confidence among the universities but gradually on account of financial difficulties and the power of the state governments to legislate, the universities are increasingly dependent on the state governments, and the UGC has not palpably assisted them in their immediate problems, mostly financial. As the UGC has been generally understaffed no research cell for R & D (Research & Development) is organized and studies are done through panels of committees and a good deal of work is done by the UGC officer-member-secretaries of such committees. But there is no plan of studies or continuity in research work. The studies are *ad hoc*, not systematic. There is a separate statistical section assisted by a machine for punching cards. The Ministry of Education has a statistical wing for collecting comprehensively all-India educational statistics but those relating to universities and colleges are collected by the UGC also. There is thus duplication and often confusion. The UGC has got a useful and scholarly library used by officers and scholars from the universities but since there is no plan of studies the use of the library for research is unguided, unmotivated and uninspired.

Selection of Officers

The officers are selected by the Commission through the normal procedure of a selection committee of the Commission which serves like the Union Public Service Commission. Posts are advertised and the best persons selected. A large number of posts are filled by promotion by the Commission themselves and government procedures are normally followed in regard to salaries, allowances, TA/DA, leave, pension, provident fund and conduct. Some rules and regulations have been made by the UGC but they are mostly a copy of the central government rules and in any case the Ministry of Education's approval is required for these rules. Being like an attached office (treated as a subordinate office) of the Ministry of Education, the salary-scales of under-secretaries, deputy secretaries and joint secretaries, etc., are lower in the UGC than those for similar parts of similar responsibilities in the Ministries of Government of India. Officers are hardly taken from the universities on deputation but only in exceptional cases has a senior officer been taken on deputation from the government. The attrition rate is not very high and the officers are not transferable to government departments and they get bored with the same type of work after five years. A few junior officers deputed on promotion from the Government settle down permanently in the UGC for want of alternatives.

Procedure of Work

The bureaucracy of the UGC is comparable with any other bureaucracy, though being a well-organized small office, delays are fewer and despatch quicker.

The work is very much centralised between the secretary of the UGC and the chairman, i.e., the executive authority and the policy-making authority. The full commission meets once a month like the syndicate or the executive council of any university and the officers are tuned for a month towards preparing notes on the items of agenda for the meeting. This is a continuous task because even if regular notes are finalized a week before the meeting, there can be supplementary and additional notes on urgent items before the day of the meeting.

At any meeting the items may range from 50 to 150 and these are normally finished in half a day and sometimes a full day or in 1½ days. Items for consideration arise out of requests of the universities for additional funds, for additional programmes, for maintenance grants of central universities, a few policy matters of central and state universities arising from appointments of staff, or governmental items or administrative and executive matters concerning the UGC's development schemes generally published in advance for the information of all universities and colleges.

A few months before the formulation of each five-year plan, the UGC sends circulars and sometimes questionnaires to the universities requesting them to propose their schemes of development for the next plan. A scrutiny of all demands is made by the office. These demands are examined in relation to the likely funds from the Planning Commission through the Ministry of Education and in relation to the funds every university is told to reduce its demands within a tentative figure. After the revised plans of the universities are ready, visiting teams are sent by the UGC to different universities, consisting of experts, professors, Vice-Chancellors, and one or two members of the Commission along with one or two officers. The visit is normally for two[1] days and the members of the team go round the campus of the university, teaching buildings, libraries, laboratories, hostels, some affiliated colleges, and hold discussions with the departmental heads, a few teachers, student representatives and others recommended by the Vice-Chancellors. The whole schedule of the visit is prepared by the Vice-Chancellor on the basis of the request of the UGC. The UGC officers make copious notes of these visits to prepare a draft report which is approved by the members of the visiting team with recommendations for development plans and financial provision. All such reports then are consolidated and the total financial liabilities are adjusted within the total grant available. The procedure of cutting down the programmes of the universities is undertaken by senior officers of the UGC and the chairman and submitted formally to the Commission for consideration.

Once the plans of the universities have been approved by the UGC, the financial provisions for staff, equipment, laboratories, libraries, buildings, hostels, etc., and for any special academic programmes like centres of advanced study are covered. But these are flexible plans in which state governments are involved for matching grants and for continuing the programmes as committed expenditure after the five-year period. Within the ceiling a few adjustments are possible with the approval of the UGC. The procedure is different from that of the UK UGC.

The tendency on the part of the universities in spending the amount is to save on the teaching posts because in the first place the procedure for appointing the teachers takes time and delays and what should be done from the beginning of the five-year plan is only achieved in the last 3 or 2 years and even then not all posts are filled and there is a good deal of saving of money on the staff. The universities are anxious to use the savings for capital outlay in buildings and laboratory equipment, etc. Even here there is delay in construction because of the approval of the architect's plans, UGC's approval, appointment of contractors and difficulties in securing building materials like steel and cement and the rising costs. Normally UGC procedures provide against the use of current grants for capital investments but the difficulties of the universities are explained and the Commission may approve such modifications in the plan. If there are savings from the spending capacity of the universities, the UGC prepares new programmes, for example, summer institutes and centres of advanced study, which were initiated late in the Third Plan. The normal approach of the UGC is to treat the university proposals with academic respect and due courtesies and to reason out with them against exorbitant expenditure on buildings as it is impossible for the UGC to exceed their own financial ceiling.

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[1] For the V Plan the procedure has been refined by the UGC by collecting more detailed information and asking the visiting team to spend more time at the university headquarters.

Under the revised act of the UGC of 1972, the procedure has not much changed.

How far British Device Useful for India

There are, however, difficulties of the office and officers of the UGC. Unlike the British UGC, there are no central service officers of the Government, barring exceptional cases of one or two on deputation for a short period in the early history of the UGC. For the kind of work, they have hardly much experience of government machinery and planning processes or field work and they are understaffed and therefore organizationally staff work is not as intensive, analytical, deep and critical as it could have been. Not having the rank or status of officers in the Ministries they often feel suppressed in meetings with their counterparts in the Ministries. There is also too much subservience to the advice of the Ministry of Education who have powers in the act to overrule the UGC in certain situations. It is not that the government interferes very much, but in the conventions and procedures the UGC is just like another attached office of the Government of India without the advantages for officers of transfer and promotion in the Government of India services. This demoralises the officers, their salaries being lower than those in the government for the same posts and similar kind of work.

While the UGC enjoyed prestige among the state universities in the beginning, gradually they have tended to look to the state governments for maintenance and other assistance because they feel themselves helpless with the UGC's assistance unless the state governments agree to give the matching share and promise to maintain the development when the plan is over. Many state governments also tend to ignore the advice of the UGC and there are examples of this happening in M.P., U.P., Bihar, West Bengal. This creates certain tensions among the universities and the UGC. The state governments sometimes take the advice of the UGC in a casual manner because the UGC has no political influence and at the present moment scholarly and scientific advice is at a discount unless it is supported by convincing political power. Thus we have to consider how far the British device is useful for a federal country like India where the only big beneficiaries of the UGC are the central universities, Delhi, Banaras, Aligarh, Vishva-Bharati and Nehru.

It is true that the Sargent Report (1944) and the Radhakrishnan Commission Report (1949) recommended the British device for India. But they had hardly analysed the federal character of this country and they had not visualised the difficulties mentioned above.[2] The Sargent Report had however in mind a completely central authority for co-ordination of standards and for making grants to the universities. The Indian UGC has not been organized on these lines. It becomes clear that the responsibility of dealing with states has to be on a government-to-government level and so these functions can be carried out better by a Central Ministry of Higher Education.

Today the state universities find themselves in a difficult position because a situation arises very often where the UGC's advice is not necessarily acceptable to the states in regard to creation of more teaching posts, revised scales of pay and additional buildings, as well as certain academic policies where the suggestions made by the Ministry of Education, for example, in the Model Act as well as in the UGC document 'Governance of Universities' may not be acted upon by the state governments. The states are gradually bringing all universities under uniform Acts[3] and the personality of each university is being submerged under the pressure of government directives, ordinances and legislation. The UGC has hardly given their active guidance either for asserting academic freedom of the universities they should enjoy or for special financial assistance to the universities for development. For nearly 20 years from 1956 to 1975 UGC has been active and amended its act two times but its control for co-ordination of standards has somewhat weakened due primarily to inability to deal with all disciplines in a university and the undervaluation of academic or scholarly advice by the state governments

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[2] *Sargent Report*, 1944. Third Edition, p. 27.

[3] See the unified university acts of M.P. & Maharashtra Governments in 1972 and 1974 respectively.

2. *University and Student Costs*

The subject of student costs is engaging the attention of scholars only recently in India and economists of education and statisticians are evincing deep interest in it. Unit institutional cost in higher education was analysed for the first time by Professor A. R. Kamat in his study entitled "Two Studies in Education" in 1968.[4] This was based on the University of Poona and its colleges and covered its student costs and institutional costs in a statistical analysis. Such scientific approaches, however, have not been made in relation to other universities and to a large extent the responsibility is of the University Grants Commission which should have an R & D section dealing with such studies either by themselves or by scholars in the universities commissioned by them or perhaps its present statistical section should develop into a study section with additional research staff for the purpose. If the UGC have to make any forecast about future developments it must be based on scientific data interpreted by scholars.[5]

The UGC in the U.K. does the analysis of university cost in details but they have also found that not one method is necessarily applicable for such a study.

Of course, the UGC in U.K. has had a tradition of more than half a century and they have to present to the British Parliament a statement of funds the university system needs for every quinquennium, on the basis of hypothesis of student numbers and therefore they are most concerned with *per capita* costs. The Indian UGC does not consider student places and the student numbers as their concern as it is beyond them to control either. And so *per capita* costs have no significance to them in the execution of schemes; for the British UGC it is the sheet-anchor of all estimates of costs. Therefore disparities occur such as a *per capita* cost of Rs. 1000 per year in Delhi against about Rs. 300 or less in the universities of M.P., U.P., and Bihar.

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[4] Kamat, A. R., *Two Studies in Education*, Gokhale Institute, Poona, Asia Publishing House, 1968.

[5] The Education Commission's analysis in this respect is inadequate and incomplete. See REC, p. 478 and pp. 510-514.

This is obviously a very complicated problem. In order to introduce a sense of justice and fairness to all universities while making both development and maintenance grants the British UGC in their secretariat undertakes various types of exercises guided by experts and also by the findings of the Committee of Vice-Chancellors and Principals which in some respects is equivalent to our Inter University Board.[6] This Committee meets monthly and special sub-committees are involved in research studies applicable to the present problems of universities which are both financial and academic. J. C. Walne of the University Grants Committee (U.K.) has stated this problem in his analysis of university cost at the UGC[7] in 1973.

The Indian UGC with an experience of nearly 20 years, has been finding it difficult to follow the methodology of the British UGC. In the first place, in Britain all the universities including the Scottish ones are under one control both for maintenance and development and there are not heavy disparities in per capita costs from university to university. There are no government-run colleges and no institutions like the Indian central universities in the U.K. In India the variation is very wide.[8] Except for the central universities of Delhi, Banaras, Aligarh, Vishwa-Bharati, Jawaharlal Nehru University, New Delhi and now the proposed Central University at Hyderabad and the IIT's, other universities are state controlled and their maintenance is borne by the states and even for development the state has to provide a matching share for certain UGC schemes except for the cent per cent development grant for the post-graduate departments for a five-year period.

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[6] Now known as *Association of Indian Universities* (AIU).

[7] See his article in *Higher Education*, Vol. II, No. 2, May 1973, an International Journal of Higher Education and Educational Planning, Elsevier Scientific Publishing Company, Amsterdam on Analysis of University Costs at the UGC, pp. 228-234.

[8] See *REC*, pp. 510-574. These are estimated figures.

See also *REC*, p. 483. The calculations and projections made for 1975-76 and 1985-86 are hardly relevant to-day as assumptions have gone wrong.

Another factor that plays a significant role is that willynilly the state governments have to provide maintenance charges accruing from development of universities over the 5-year plans after they are over. Sometimes, the state governments raise objections in regard even to the matching share which they have to bear against UGC grants during the plans, but more often they raise points regarding the committed expenditure arising out of the development grants. This happens in states where there are financial difficulties.[9] This is a peculiar feature of states where new universities have been established but it has not been possible to maintain even the older state universities in the manner in which UGC would provide grants to the central universities.

A matter of tensions among the academics of the state universities is that on the funds of the UGC, the first demand is the maintenance charges of the central universities including the commitments to the 40 odd colleges of Delhi, which amounts to about Rs. 5 crores a year. On an average, each college means Rs. 10 to 12 lakhs a year of maintenance grant, while a number of colleges in the state governments are happy if they could secure Rs. 20,000 to Rs. 30,000 per year by way of maintenance grant. The state universities of M.P. like Jiwaji, Raipur and Indore get hardly Rs. 3 lakhs per year of maintenance grant, which is less than one-third of the amount that a Delhi college gets! The tensions among the academics are about the unequal distribution of central money, that is tax-payers' money from all over India, benefit of which goes disproportionately to the central universities.

Since 1964-65 30 centres of Advanced Study have been introduced by UGC in 14 universities, the largest number of 6 centres being established in Delhi University. The scheme is intended to encourage pursuit of excellence and team work in studies and research and to accelerate the realization of international standards in specific fields. The UGC gives substantial assistance to these centres for the staffing of additional professors, readers, research associates or fellows of outstanding ability and qualifications actively engaged in research and advanced training. Capital grants are also given for additional buildings, equipment, library books, etc. Other facilities like fellowships, travelling expenses, expenses over special seminars, etc. are liberally provided.

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[9] For example, U.P., M.P., Bihar, Rajasthan, but gradually even other states are in the same difficulties.

But the position today is that the state governments have been asked to maintain the advanced centres after 10 years,[10] seven of which have been discontinued for want of high standards.[11] The central universities have no problems as their centres will be maintained by the UGC. The states however will be hard put to it to maintain them. Under the revised Act of 1972, the UGC could maintain all the centres but the UGC may be in financial difficulties. The states would not be in a better position.

3. *British and Indian Procedures*

In preparing the estimate of requirements of British universities for the U.K. Government, the British UGC gets the estimates of individual universities and analyses them for presentation of a coordinated view of the maintenance and development requirements of the universities.[12] It is a reasoned assessment of university requirements. Thus there are 3 layers of controls in the financial calculations of university requirements. First, the universities themselves when they send their estimates to the UGC have to control the departments from any excessive or exaggerated demands. Second, the UGC while coordinating the demands of different universities gets a comparative picture of the needs of different universities and reasonably reduces the demands by necessary consultations. Third, the government, formerly the treasury and now the Ministry of Education and Science, and the Treasury take a financial or budgetary view of availability of funds and reduce the demands further in consultation with the UGC.

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[10] UGC circular letter to concerned universities in 1974.

[11] News item, July 1974.

[12] Annual Reports of the British & Indian UGC.

Indian Procedure

The procedure in the Indian UGC though originally intended to be of the same pattern is somewhat different. For maintenance of the central universities the UGC officers briefed by the universities hold discussions with the officers of the Ministry of Education and later a tripartite discussion among the officers of the Ministry of Finance, Ministry of Education and of the UGC. Normally, there are no arguments about maintenance grant as committed expenditure, but there is greater freedom secured by the central universities than the state universities for development particularly in regard to the sanction of additional teaching posts that will become committed expenditure after the 5 year plan. By and large the Ministry of Finance concedes the demands of the UGC for maintenance of the grants for the Delhi colleges and the ever growing demands of the departments of central universities approved by the UGC. A factor that the Finance Secretary and Education Secretary are ex-officio members of the Commission paves the way for smooth discussions.

This procedure is not applicable to the state universities. In nearly all the states governments are the co-ordinating agencies for development in the universities. The machinery for the purpose varies from state to state. In states like Maharashtra, Kerala, Andhra Pradesh, there is a separate Director of Higher Education. In some of the other states the Secretary of the Education Department and sometimes additional or Joint Secretary performs these duties. In this arrangement the problems of the universities are placed in a co-ordinated manner before the state government. Very often the Vice-Chancellors meet the minister and discuss their problems of financial worries but the Vice-Chancellors do not get any encouraging response in relation to their financial demands. Sometimes, irritating situations are caused to the universities when they are asked explanations about the work of the additional staff sanctioned by the UGC and the reasons for making appointments for additional staff though they might have been sanctioned by the UGC when the state governments had no funds for maintaining the staff after the plan period. The state government secretariat is generally discouraging, when they criticise the great deficits in the budgetary provisions of the universities and do not feel committed to cover them. The UGC cannot actively influence the state governments.[13]

There are thus differing approaches of the UGC and the Central Government machinery of unequal treatment of state and central universities. This needs to be remedied as the tax-payer for the Central Government is from all over India.

4. *Allocation of Funds*

It is clear that the government's allocation of funds to the UGC, British or Indian, and the UGC's allocation to the universities becomes a complicated problem. If the sum provided by the government is very much less than the estimate of the UGC, the arithmetical reduction in the allocation to universities would be of dubious significance. Therefore, the UGC has to be an expert body to make assessments after due consultations and advice in regard to the academic importance of programmes of the universities. This involves a good deal of objective type of staff work and by experts and the UGC officers or the committee members dealing with the problem should not get involved or interested in any particular university.[14] An objective analysis is a matter of the secretariat of the UGC and it means detailed studies of all universities on a uniform basis by a study group. This is a formidable piece of work and for the second, third and fourth plans the Indian UGC was only discovering techniques to do this job.

The complicated procedure adopted by the UGC has difficulties which can be classified as (1) human, (2) lack of expertise, and (3) lack of funds. These handicaps have to be overcome by experience and by the strong desire to have an objective or scientific approach to the problem of allocation of funds. The British UGC send visiting teams to different universities who stay there for three days and have long discussions with different parties, but before that the preparation in the form of analysis of information in a detailed manner involves the universities and the UGC in a good deal of work to prepare them for the visit.[15]

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[13] This is based on personal experience in the UGC and in the universities of M.P. and other states. The actual position is reported to be worse than described above.

[14] It is difficult to say that teacher members of the UGC would not favour their own universities. See Rudolph & Rudolph, *op. cit.*, pp. 73-75.

In the early stages of its work in relation to about 60 universities, excluding the agricultural universities and the IIT's, this was a tremendous task. Secondly, the universities have really increased in such numbers and the amount to be distributed is so small that some via media has to be quickly introduced in order to make the allocations as objective and justifiable as possible. The academics should not feel that a particular university, whether central or state, appeared to be favoured more than any other university in regard to development of departments. They have not so far questioned the decisions of the UGC, but they have not been happy because all universities should be equally disappointed on basic principles which would be convincing and publicly available to all. The UGC has very often found itself helpless in justifying its allocations.

The above discussion will indicate that the UGC has to undertake its own studies of costs using raw material and the returns made by universities annually and at the end of each five-year plan. Statistical methods have to be employed in studying these details sent by the institutions and this would mean a special study cell in the UGC and an awareness that statistics are not merely an arithmetical calculation, but involve analysis, understanding and reasonable forecasting.

5 *Planning Procedures*

During the last three plans, the UGC has done some basic work in regard to the needs of the universities and the universities on their part have been responsive to the request of the UGC for further information. The UGC had however always difficulties in getting information from the universities in time, even from central universities and quite a lot of information supplied is incomplete and often casual and not up-to-date. This has meant that the questionnaire to the universities has not been simplified to cover the complicated system of accounts of the universities or the accounts of the universities have not been refined in such a manner as to give precise replies in a detailed way to questions of the UGC. The visiting teams sent for the last two plans, therefore could not be furnished with critical information from universities and the needs of the universities which were justified on the basis of academic demands were not gone into such details as would be justified on a comparative study of different universities. The British UGC has fuller information since detailed answers to all types of questions are available and the visiting team understands the point of view of the universities, when they make demands for new posts or development of departments or for buildings, equipment, laboratories, libraries, residential places for studies, etc. The Indian UGC visiting teams are hardly well prepared or briefed before the visit and detailed discussions are not possible unless there is a good deal of detailed preparation. In some cases the visits tend to be casual and UGC decisions tend to be guesswork or arbitrary. This has resulted in some universities not being satisfied or equally dissatisfied to the extent they should have been when they compare themselves with the central universities and other state universities. They have often felt that they have not been given a fair deal. But the real difficulty is the increasing demands of universities against inadequate funds. The argument of the UGC normally is that within the limited amount provided for them by the government for planned development, it is not possible to meet the legitimate demands of all universities and they have to reduce the provision against their demands as much as feasible and they have to dissatisfy all the universities equally. The academics could argue that the degree of disappointment is unequal.

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[15] For the Fifth Plan the Indian UGC has started sending long questionnaires to the universities and colleges for collection of information on the U.K. pattern. However, it means a great deal of staff work and some studies should result in useful publications.

The substance of this discussion is that in the absence of accurate knowledge, the UGC's decisions could only be broad and general and detailed guidelines agreed to by the university and the UGC cannot be drawn. The UGC appears to give a final decision as a result of the visiting teams' recommendations which may not please the university but they have no other alternatives. The returns of the universities have to be considerably refined by proper research methods. There should be less secrecy about public matters. The criticism of the UK UGC by Dr. Berdahl of the State University of New York, Buffalo,[16] suggested that there should be a public debate on the roles and powers of the university and the state. "In the absence of accurate knowledge about how the system is actually working, universities were not sure where the real as opposed to the rhetorical boundaries were, and were consequently uncertain when to yield or when and how to fight the state." Dr. Berdahl commented: "The obvious danger is that in grumbling querulously and half-heartedly at each succeeding unpleasantness, the academic world may bring on two disastrous conditions: first, a weakening of the ability of Academics to mount a really effective protest when a serious threat to essential academic values has arisen; and, second, an increasing exasperation of the outside world with what must seem like incessant bleating and a consequent risk that they may not take even a large protest seriously if a real wolf appears."[17] The suggestion of Dr. Berdahl made for the British UGC is applicable to Indian conditions. He felt that the committee of Vice-Chancellors, the Association of University teachers and the National Union of students should sponsor a conference on the theme as early as possible and the debate should be on a re-definition of the essential ingredients of autonomy, followed by a decision whether it would be wise to approach the government for an explicit concordat. A government white paper setting out proposed statutory powers for the UGC can well be the basis of a further debate on the mutual obligations of the universities and the state.

[16] *Higher Education*, Volume II, No. 2, May 1973, p. 172. Summary of a paper by Robert O. Berdahl on "The University Grants Committee on the threshold of Mass Higher Education".

[17] *Ibid.*, p. 172.

Difficulties of AIU—in not being helpful to UGC

Applied to Indian conditions, the lead has to be given by the Association of Indian Universities. However, it is not that the Association has not been seized of the problem but it has never debated this question open-heartedly for the following reasons. First, the secretariat of the Association has never prepared a detailed paper for consideration of the Vice-Chancellors after deep study of the subject for they do not get detailed information from the universities or the confidential documents of the UGC. Individually Vice-Chancellors have been critical of the small grants for their universities and also of differences in the grants to the central and state universities for which reasons were not known to them. But they have not been able to discuss this matter openly probably because they did not want to be marked out as black sheep. Second, the UGC has not explained the position of how they work through the visiting teams and how the grants are made, because considerable amount of this work is of a confidential nature and more than that the nature of raw material incomplete and ill-digested. Dr. Berdahl goes on to suggest that there should be no secrecy about the UGC meetings and he proposed that "UGC meetings should be open to the public and the press and its minutes and other official documents widely circulated. Justice must not only be done, it must seem to be done; and such a set of reforms might help to break the cycle of mutual antagonisms building up between some academics and the states."[18]

6. *UGC Device cannot Work in a Federative Government*

The argument of Clark Kerr[19] is that the UGC as a buffer between the government and the universities will not function in a federal type of government, because the functions that have been taken by the British UGC are functions that belong to a central government in a unitary form of organization and any decision could be easily supported by political power. It could not work in a federative organization, where different states with different backgrounds may have different political pulls.

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[18] *Ibid.*

[19] Kerr, Clark, *The Uses of the University, op. cit.*, p. 73.

What, then, are indeed the problems before us and what should be the organizational set-up for the purpose?

Obviously the main purpose of constitutional provision of education being a state subject was decentralization of education. This can be described as the decentralised project approach and this is very desirable so far as primary and secondary education are concerned. The decentralized project approach has its own merits because it could be selective, flexible and the UGC could give grants in accordance with the quality of performance and in accordance with some national goals of training manpower for economic development of the country. Clark Kerr says, "But such dominant reliance on the project approach is no longer likely. In fact, the project is already less the chosen instrument than it once was. Productive anarchy is no longer such a politically viable solution."[20] Choosing an institution on merit is a problem for any organization because it is always difficult to assess the total merit of an institution by reducing the picture to a mathematical model or to quantification analysis.

The British devised methods over the last 50 years of giving those powers to the UGC about salaries of teachers, construction, establishment of new departments, which the Indian UGC tried to do during the last 20 years but has not succeeded. The salary scales recommended by the UGC for the second plan were not implemented by some states even till the fourth plan and the posts created by the UGC in the third plan were not maintained by many states in the fourth plan because of the financial difficulties. The UGC cannot play its part as a buffer between the state governments and the universities and has not been able to convince the state governments of the efficacy of spending more money on higher education for maintenance of standards. The argument that the central government pays large central grants to the state governments through the Finance Commission once every five years, which should be utilised for maintenance of developments of the university during the earlier plans does not convince the state governments. They argue that the financial award of the Finance Commission is a partial return of state taxes collected by the centre and is hardly adequate to meet the demands of economic sectors such as agriculture, industry, roads and communications, housing, etc., and there is very little left for higher education when they have the big and costly task of bringing millions of children to the primary and secondary schools. Since the amounts are not earmarked for university education in the Finance Commission award, the state governments find it difficult to give it priority in the distribution of the amount for different sectors.

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[20] Kerr, Clark, *op. cit.*, p. 73.

Here Entry 66 in the Seventh Schedule of the Constitution in List I (Union list) comes handy for some solution to the problem! "Co-ordination and determination of standards in institutions for higher education or research and scientific and technical institutions." The famous case decided by the Supreme Court of Gujarat University *vs.* Shri Krishna[21] depended on Entry 66 mentioned above. This power of the Centre can be interpreted to mean that the Centre wishing to take over financial control of post-secondary education can do so under the clause of co-ordination and determination of standards in institutions for higher education. It is not necessary for the purpose to have higher education in the concurrent list as recommended by the Sapru Committee or even higher education in the central list because the existing power would appear to be not inadequate for maintenance of standards.

Here it is worthwhile mentioning this case briefly. The University of Gujarat had prescribed Gujarati or Hindi as the exclusive medium of instruction and examinations in colleges under the jurisdiction of the university by an act of the State of Gujarat. This was challenged and the Supreme Court held by a majority of 4:1 that the state had no such power. It was argued that while Entry 11 of List 2 conferred power on the state in respect of education including universities the exercise of this power was subject to Entries 63, 64, 65 and 66 of List 1. It was argued that even though medium of instruction was not a distinct legislative head, the use of a particular medium had a direct bearing and impact upon the legislative head of "co-ordination and determination of standards". Therefore this power must be deemed to be excluded from the state government.

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[21] *All India Reporter* (Law) 1963, Sc. 703.

This power has to be used by the Central Government to raise the standard of higher education in India. For this purpose all universities have to be recognised on an equal footing as national institutions and treated alike for maintenance and development. In organizing this problem, we have argued that the device of the UGC is unworkable in a non-unitary state. Therefore the establishment of a Ministry of Higher Education is the obvious and practical solution.

7. *British Model not Applicable to India or USA*

A point of distinction between the British UGC and the Indian UGC is that the British UGC deals with all subjects of higher education in the universities including medicine, agriculture, veterinary science and dentistry, engineering and technology and indeed there are sub-committees for these subjects, and representatives of the Ministries of Agriculture, Fisheries and Food, Education & Health Departments, Research Councils are nominated as assessors either on a committee of the UGC or one of its sub-committees. This gives comprehensiveness to the functions of the British UGC and enables it to co-ordinate higher education at the apex and substantially assist programmes of inter-disciplinary content. Besides it is easier to carry out these functions in a unitary state than in a federal state.

The Indian UGC does not deal with medicine, dentistry, agriculture and technology. It deals with engineering and technology in university institutions only. The government engineering colleges as well as regional colleges of engineering and the IIT's and other institutions of the same type are with the Ministry of Education advised by the All India Council of Technical Education (AICTE). The argument is if the different Ministries through advisory councils have developed important sectors of higher education without a UGC, will it not be possible, even in a better way for a Ministry of Higher Education to do so, coordinating all sectors of post-secondary education (after 10th class) in co-operation with the state governments and various other Ministries of Central Government?

For grants to engineering universities like those of Roorkee and Jadavpur, the UGC consults the AICTE that is really the Ministry of Education, for the Minister of Education is the chairman of the AICTE. The whole procedure is rather involved and indicates that UGC does not have any clear freedom even in these subjects and of course the other professional subjects are with the respective Ministries. It does not deal with the national laboratories and co-ordination between the national laboratories and universities cannot be established except through the good wishes of the Central Department of Science & Technology.

Lack of Coordination

The Indian institutions have thus been very much departmentalized and the coordination function of the UGC granted to it by the UGC Act could never be said to have been properly exercised because of this fragmentation. The Sapru Committee had indicated more unity of purpose but their recommendation that the subjects of agriculture, medicine and technology be brought under the UGC has not been heeded by the Government. The 22 agricultural universities have been established by the Ministry of Agriculture in cooperation with the state governments without consulting the UGC. An important section of higher education and of modern technological and scientific development is not with the UGC and the suggestion of the Education Commission that there should be UGC type of commissions for agriculture, medicine, etc.,[22] is a little far-fetched because that will mean difficult coordination of these commissions and may not fit in with the principles of systems analysis and management.

The amendment to the UGC Act of 1972 does not really modify matters in regard to the above position. It makes the distinction between central and state universities under section 12(b) with the result that the central universities "established or incorporated by or under a central act" get generous grants

[22] *REC*, p. 343.

from the UGC for maintenance and development or for any general or specified purposes.

The 1972 Act, however, under section 12(c) provides that the Commission could "allocate and disburse out of the funds of the Commission, such grants to other universities as it may deem necessary or appropriate for the development of such universities or for maintenance or development or both of any specified activities of such universities or for any general and specified purpose". But in spite of this provision the centres of advanced study in state universities have been transferred to state governments for maintenance by the states after being maintained by the UGC for 10 years.

This improvement on the previous Act could be interpreted to mean that state universities could also be maintained for the purpose of standards with grants from the UGC and they could give grants, both maintenance and development, for special activities just as they give them to the central universities. This is an important enabling power of the Centre and since all states have difficulties of maintaining the universities and thus their standards are affected, UGC in consultation with State Governments, could assist them to the extent necessary say 50 per cent to 90 per cent of maintenance requirement, the balance being obtained from the states. But this will be a difficult strategy for the present UGC as they have no political or administrative power even in the Central Government and much less among the state governments.

In actual practice, moreover, there have been other difficulties. Today while the central universities develop with large funds but not necessarily higher standards,[23] the state universities have to do all types of economies in order to maintain themselves or languish with the small grants of state governments. This is not only against the principle of development of higher standards uniformly in all universities and of coordination but it is against the principle governing a socialistic state where central funds drawn from all the states are being concentrated in a few central institutions only and the states do not get similar benefit.

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[23] It is difficult to assess comparative standards on the present data except on an impressionistic basis. Madras, Bombay, Calcutta and Punjab universities as well as those of Allahabad and Lucknow cannot be said to have lower standards than those of the Central Universities, with much less total financial allocation from the government.

Thus the device of the UGC in India cannot be compared with the UGC in the U.K. nor even New Zealand or Sri Lanka which are very much smaller countries and though Australia has different states the problem is not so complex as in India because of the larger number of states in India and secondly of the much larger populations in each state.

It is a little painful but logical to come to the conclusion that the British device of the UGC does not work in India.

The Inimitable British Model

The British themselves have been humorous about the "typically British" institution of the UGC which cannot be easily transported to the other Commonwealth countries unless there are the same traditions and conditions which obtain in Britain. Sir John F. Wolfenden has said, "the University Grants Committee is what many people would call a 'typically British' institution. They mean that on the face of it, it is *illogical, irrational and untidy*. The answer is while it may deserve all those adjectives, the fact is that it works—like a good many other institutions which are called 'typically British'."[24] The obvious implication of the above statement is that the British device cannot be easily transported to other countries and much less to India where the exported article of British university has not succeeded during the last 100 years[25] and we have not developed indigenous thinking to modify and improve the model.

The Americans look at the UGC as a British device which should be successful only in Britain. Clark Kerr ruled out UGC for the U.S.A. He said "if you are to move toward federal orientation to the 'total function of the university', then the University Grants Committee in Great Britain is the outstanding precedent,—and one that has received some support in the United States. However, there are only about 30 universities in Great Britain (they have today become 44) and it is clear what is and what is not a university. Additionally, the University Grants Committee has come to exercise more influence over the establishment of new programmes, the cost and size and even the appearance of new buildings, the equalization of faculty salaries among institutions and determination of admission policies than would currently be acceptable if it came from the federal government in this country."[26]

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[24] Sir John F. Wolfenden—Article in *Higher Education: From Autonomy to Systems*. Ed. J. A. Perkins, International Council for Educational Development, New York, 1972, p. 133.

[25] See Ashby Eric—*Universities, Indian, African*, 1966, p. 138-9.

8. *The System of Block Grants*

The Radhakrishnan Commission observed: "We have referred to the system of block grants to universities, and we wish to emphasise the adoption of the system which enables the universities to utilise the block grants in the best manner possible. There should be no question of any lapse in any particular year and no question of hurried implementing of some ill-considered schemes to prevent such lapse to the government. Moreover, plans for the development of the university education cannot be drawn up in such a manner as to enable the authorities to give full effect to them within a particular year. We believe that the system that obtains in certain of the universities of block grants by provincial governments has worked so successfully that we have no hesitation in commending this system to the central government and to other provincial governments as well. It will, however, be understood that block grants are mainly intended for maintenance purposes, while additional grants will be available for development schemes which are approved by the University Grants Commission from year to year."[27]

The Radhakrishnan Commission had not made it specific that the block grants should be paid by the UGC to all state universities. It made recommendations that block grants should be made to state universities jointly by state governments and the central government.

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[26] Kerr, Clark, *op. cit.*, pp. 72-73.

[27] *University Education Commission Report*, pp. 407-412.

The arguments so far are in favour of working within the present framework of the Constitution but of giving more powers to the central government to enable them to make block grants to all state universities. This is legally possible as indicated by the amended UGC Act of 1972. However, in actual practice there will be hesitation in taking action partly because of the financial position of the central government, and partly because of the new state-centre relations that would emerge if 'block grants' from the centre were made available to all universities. This, however, should be no problem if the central government take up the entire burden of giving block grants to all universities as well as development grants in consultation with the state governments and also allow the state governments to contribute towards such grants in some proportion and assist the state universities in special programmes. This is a practicable suggestion and may not require much political sagacity.

Thus the state governments will save a good deal of headache and some money which can be utilised by them for improving secondary education and expanding primary education and to that extent the central government can modify their development grants for expansion programmes of school education putting larger burden of it on the state governments. This is only a matter of financial adjustment between the centre and the states and secondly the main advantage would be that all universities would be treated alike by one central agency, and there will be a better "system" of Higher Education in India.

However, this position is not so feasible with the present organization of the UGC, because to deal with state governments requires government to government dialogue which the UGC cannot provide.

The UGC has to depend for this on the Ministry of Education and UGC has to explain its position to Parliament only through the Ministry of Education. This subordinate role of the UGC makes it weak to deal with the federative problems and while Parliament has always expressed a sense of admiration for the activities of the UGC in assisting the universities and in advancing research programmes and building up post-graduate departments during the discussions of the annual reports of the UGC, they have not taken active interest in regard to allocation of maintenance grants to state universities and encouraging a uniform development in all universities with reference to higher standards to be attained by state universities. They are bound to raise these questions eventually. *This will be only possible if a Central Ministry of Higher Education for all post-school education (post-10th class) both liberal and professional, is established.*

9. *Conclusions*

From the foregoing analysis we arrive at the following conclusions:

(i) Under Entry 66 (List 1) of the VII Schedule of the Constitution, the central government has been given the power of "co-ordination and determination of standards" in institutions of higher education or research and scientific and technical institutions. The Supreme Court judgement in the case of Gujarat University *vs.* Shri Krishna has indicated the predominant power of the central government under this entry and even if Entry 11 List 2 of the VII Schedule makes education a state subject, this is subject to Entry 66 of the first list. This is not the position of the UGC in the U.K. or other Commonwealth countries. *Therefore, it is desirable that a Ministry of Higher Education like the one in the USSR or the coordinating department in the USA be established at the centre in which will be merged the present UGC, or alternatively tthe present UGC could be converted into the Ministry of Higher Education.* Because India in sheer numbers and in the varied problems can, in administrative structure, be compared with only these two big countries and it has gradually to wean itself from the influence of 'typically British institutions' and evolve its own pattern into a modern system.

(ii) The officers of the UGC today have no status of government servants and have no experience of other type of administrative and much less of the field work of the universities in different states and even their scales of pay are comparatively lower for doing government type of work. This anomalous position of the officers will disappear when the proposed Ministry is established. The duplication of work today between the Higher

Education Division of the Ministry of Education and the UGC in matters of information, analytical studies, policy and authority would be avoided and certain economy established in streamlining and systematizing work.

(iii) Such a ministry will have all the political power and the parliamentary support necessary to carry out programmes of coordination and determination of standards.

(iv) The argument that UGC is able to deal with academic problems with academicians expeditiously does not appeal to us because in the case of technical, medical and agricultural education the ministries themselves deal with such problems quite effectively and have been able to raise standards with different administrative devices of consultation and action. In the case of technical education the Ministry of Education has created the All India Council of Technical Education which deals with academic problems while policy matters are decided by the government. Similarly, there could be councils in the proposed ministry for dealing with academic problems for various subjects and visiting teams to universities could be organized by the councils. This will enable the central government to deal with the state governments in a closer relationship and the ministry will be directly responsible to Parliament for all major policy matters. Parliament would show greater interest in building up manpower, training programmes, coordination of standards and allocation of funds, uniformly in all the states and in all the universities.

(v) There is no advantage in a federal type of government in having the British type of UGC to play the role of a buffer between universities and government because the state governments have made the state universities entirely dependent on them and the universities have found it difficult to assert their academic freedom on account of financial weakness and the political pressures used against them, and they are unable to manage the universities economically.

(vi) At present the main function of the UGC of coordination and determination of standards cannot be performed by the UGC because the major sectors of higher education of technology, engineering, medicine, dentistry and agriculture, are outside the field of the influence of the UGC. By an administrative device, these could be brought under the proposed Ministry of Higher Education by establishing coordination between the respective ministries and the proposed Ministry of Higher Education.

This will mean in effect that the educational and training programmes of the Ministries of Health, Agriculture, Labour and Departments of Science & Technology as well as Law should be brought under the coordinating agency of the Ministry of Higher Education with a coordinating council in the Ministry with representatives of the respective ministries. Similarly, the Ministries of Defence, Railways, Posts & Telegraphs, Atomic Energy Commission, Communications, etc., should have appropriate representation on the central council for coordination, so that best advice is available from the consumers of manpower produced by the universities.

(vii) The concerned ministries should be advised not to establish their own training institutions but to depend on the universities to produce manpower they need and to advise them adequately through the Ministry of Higher Education for appropriate training programmes. The various ministries should give their research or training projects to the universities with necessary financial support.

(viii) In the ministry itself there can be separate councils but all of these should be brought and coordinated under the Central Advisory Board of Education (CABE) which should be appropriately strengthened.

Thus there will be no difficulties for coordination and determination of standards for the central government which is their major constitutional function in the field of higher education. They will also establish a coordinated system of higher education in the country and the public will know where the authority lies, which today is distributed and dispersed among various agencies.

There should be a proper liaison between the Association of Indian Universities (former IUB) and the Ministry of Higher Education. This Association should be given assistance for research programmes by the central and state governments and should be strengthened to have a strong secretariat and should gain the prestige of the British Committee of Vice-Chancellors and Principals which advises the British UGC through their monthly meetings.

(ix) We have already pointed out that Indian education is not a system and we have to take steps to organize it into one. To achieve this both academic forces and political power must have an interplay in relation to the goals to be attained. The fragmentation of higher education will thus be eliminated into a systematic organization of a Central Ministry of Higher Education.

(x) The present Ministry of Education and Welfare should deal with school education, cultural relations, CABE, the Central Bureau of Education, international organizations and other matters of this kind. It is possible to establish a proper rapport between the existing Education Ministry and the proposed Ministry of Higher Education for coordination and systematic, streamlined working. But it is also possible to establish one strong central ministry for all these purposes like the Ministry of Railways and that for communications (Posts & Telegraphs). This is a matter of administrative expediency.

(xi) Higher education should be defined to include under it all post-school education where the school is defined as a 10-year institution of the pattern of the USSR. In the states where matriculation or school-leaving standard is attained in 11 years equivalent to 10 years in other states, the pattern should be changed to 1 + 10 where the '1' could be a pre-primary class for the age-group 5-6.

The polytechnics, the industrial trade schools, junior teachers training colleges will become community/junior colleges and will all be covered under the universities to which these institutions will have been affiliated and their work will be coordinated at the state level but the all-India outlook could be given by the Ministry of Higher Education. The proposed community/junior colleges and the 'open universities' will be included among the institutions under the proposed Ministry with appropriate advisory councils and in complete consultation with state governments.

(xii) A strong research and development section in the Ministry will be charged with undertaking factual studies of the position of development of different types of institutions of higher learning in the country. Some such studies could be also assigned to the research departments of universities with federal grants of the US type. But statistical data as well as factual information will have to be processed and published throughout the year and as far as possible all latest information made available. Special studies of experiments and new ideas in advanced countries will have to be conducted. The Central Bureau of Education should coordinate all information and critical studies from the academics on the basis of the factual data should be most welcome. Dissent from governmental policies should not be resented but discussed and even encouraged for arriving at correct programmes of action. The problems, suggestions and advice emerging out of information and studies should be cleared by different councils and then by CABE. The annual meetings of the Association of Indian Universities as well as any special meetings of the Vice-Chancellors invited by the Ministry should be enabled to give advice on specific problems, the main idea being that the information and research wing of the Ministry should work in coordination with the executive and administrative branches on the one hand and the universities on the other. This will involve any number of standing committees, *ad hoc* special committees and such other specialized committees as may be necessary to probe into the problems.

(xiii) Since this would be an administrative ministry, most of the senior posts would be occupied by the civil servants, drawn from the Indian administrative service, like the civil servants of the British U.G.C. Special statisticians and research staff could be employed in the R & D Section in case civil servants do not have such specialized training. But after 4 or 5 years such of them who show administrative skill should be absorbed into the regular central civil service and there could be a few recruits from the universities. But no officer should be made to feel that he has a boring job to do; there should be reasonable changes, transfers, promotions in the service cadre within and from outside the Ministry.

(xiv) The five-year plans of the universities and block grants to them as well as development grants should be made after scrutiny almost in the style of the British UGC by officers and specially invited experts on the visiting teams.

(xv) There should be no difficulty in giving block grants to all universities under the present constitutional arrangements and the state governments could give additional grants if they so desire and assist in the coordinated endeavour to develop universities as national institutions. This will contribute very largely to the emotional integration of the nation. But there should be a continuous communication among the state governments, the central government and the universities.

(xvi) Special efforts at excellence should be encouraged through additional grants, but all universities including the central universities should be treated on an equal footing as national institutions to ensure an even growth of higher education in the country. This will result in eliminating the present disparities of high per capita cost to the government in central universities, and a very much lower cost in other states. A continuous study of the cost per capita pattern should help establish justification for fair and just grants to universities and colleges.

(xvii) Since for the next five years as a first step, the community/junior colleges would be encouraged and the concept of 'Open University' will take a foothold, it would not be necessary to establish new degree colleges at the present rate of about 350 to 400 per year.

(xviii) The reform of examinations should be left to the universities and special studies for experimentation in the examination system should be encouraged in the studies of AIU (Association of Indian Universities) and special schemes supported. However, the reform of examinations should be initiated by the universities themselves and through coordinated policy statements.

(xix) Once the agricultural universities, the IIT's, medical colleges or the proposed medical universities are brought under a system of Higher Education in the Ministry of Higher Education, there will be a greater interplay and inter-disciplinary action among all universities and the agricultural universities will not be isolated. Like the land grant colleges in the USA, they will become multi-discipline universities with a bias towards agriculture. Similarly, engineering and technology universities will be multi-discipline universities with a bias for engineering and technology. Since the community/junior colleges will also be affiliated to the existing universities, the need for more universities will be felt but there is no harm in having more universities.

(xx) The above suggestions have been made on the basis of organizing higher education on the principle of systems analysis. But since this is a new concept, scholars, politicians and administrators will have scope for further studies in the matter of organizational systems and governance of universities.

This is an answer for correcting the confusing scene obtaining today and for the increasing demand for access to higher education and an increasing requirement for educated and trained citizens for national development. It is necessary to analyse the connections of this interdependent system and to try this new experiment of coordination because the problem today is essentially one of organizing a system. This is inevitable in a modern or modernising society. The principles of systems analysis should help in coordination, efficiency and economy.

CHAPTER XII

RECOMMENDATIONS, RESOLUTIONS, REALITIES AND CONCLUSION

I

Recommendations & Resolutions

We have already pointed out that there have always been problems of higher education in India as well as in other countries but these have to be resolved through a systems analysis. The day-to-day problems of the university system are mostly academic and administrative and they could be examined at the appropriate time by the academic bodies of the university. Contradictions in university life sometimes resolve only to create challenging problems for further development. We can describe them as micro problems,[1] e.g., large-scale use of unfair means in examinations, lack of motivation of study even among serious students, influence of political parties, unrest among students, rigidity of courses of studies and irrelevance of curricula to national needs, monotonous methods of teaching and the lecture system, lack of involving students in decision-making and problem-solving, corrupt practices among teachers and students, methods of teachers in using students to pressurise college and university administrations to gain their own aims, unfairness in admissions and appointments, erosion of autonomy both by government interference and by well-organised pressure groups of students, teachers and Karmacharis—these are problems which have a historical origin right from the 1880's to date and the findings of various commissions and committees along with their recommendations have not eased the situation very much.

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[1] I owe this idea to Professor J. N. Kapur of I.I.T., Kanpur.

Why should this happen?

In a recent article entitled "Quackery in Education"[2] the author, Chaman, pointed out that for improving the quality of higher education "the need is to restore teachers' faith in the system and in their capacity to improve things, to involve them in planning process, to prepare them for implementing reforms and to make their career rewarding enough through in-service incentives. Given his due, teachers will rise to the occasion".

There seems to be no other remedy despite the introduction of 'reforms' suggested by the different commissions and expert committees. The author further says, "Thanks to the unending chant of denunciation, a general atmosphere of cynicism prevails in academic circles and, having lost faith in the system, both the teachers and pupils are haunted by the feeling of pursuing a purposeless and puerile activity."

Such analysis in journals and newspapers is available today. We have, however, attacked the system at its roots—'macro-problems', systems analysis, structural reorganization and more involvement of teachers and students in important decisions.

Standards continue to deteriorate in all universities. Even the resolutions of the Central Advisory Board of Education from time to time have not been acted upon by the state governments because of their own difficulties, mostly financial. We have described this in Chapter VI indicating the structural anarchy of the 50's on account of contradictory recommendations of different authorities.

It would appear that recommendations and resolutions of high-powered bodies have very often resulted in no programmes of action.

The fact that CABE has made a recommendation would appear to be of little consequence on account of the shifting stand taken by that body frorm time to time. The first need therefore is to reorganise the system in such a way that the system itself finds solutions to day-to-day difficulties.

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[2] "Times of India", Bombay, Sunday, 21st September 1975.

Realities

Since the recommendations of the Central Advisory Board of Education at their meeting on September 18-19, 1972, great effort is being made to implement the 10+2+3 formula in different states. Kerala was the only state which implemented the recommendation of the Radhakrishnan Commission and adopted the 10+2+3 formula with the +2 stage located in the Junior Colleges affiliated to the universities.[3] This has neither been reviewed or critically examined in any discussion. The trend in Kerala however is to upgrade some of the Junior Colleges into degree colleges and they have not integrated the vocational courses into Junior Colleges as recommended in Chapter VIII, with the result that they are running like the intermediate colleges of UP except that in UP the intermediate colleges are affiliated to the Board of Intermediate Education, Allahabad, and not to the universities. It is suggested that these colleges in Kerala should be reorganised and the polytechnics, technical schools, industrial trade schools, and primary teachers training colleges should be integrated with the system of Junior Colleges.

The 10+2+3 pattern has been introduced in the states of Andhra Pradesh and Karnataka in a different form. Andhra Pradesh has allowed the two lower classes of the school system to be attached to the Junior Colleges of the 11th and 12th classes in order to make the institute viable, and the examinations are held by a government board. Karnataka, Maharashtra, Gujarat and West Bengal have taken steps to initiate the pattern and are having enormous difficulties. Since the State of Maharashtra[4] has gone very much ahead the difficulties in implementing the programme in the state mentioned below would appear as typical of other states.

In the state government reports and executive orders the questionable assumption has been that the two classes of 11th and 12th belong to the school system and not to the universities. This has landed the implementing states into difficulties. We have pointed out earlier that for more than a hundred years these two classes have been considered to be part of the university system. When the Sadler Commission Report was considered by the three older universities of India, i.e. Calcutta, Bombay and Madras, they discarded the recommendation of the Sadler Commission and were satisfied that these two classes belonged to the university system.[5]

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[3] See Mathai, Samuel: 'The Two-Year Pre-degree Course at Kerala University' article in *The General Education Quarterly*, October 1965.

[4] Maharashtra in Jan. 1976 has taken a decision to establish Junior Colleges for Classes 11 and 12 to solve the difficulties it was facing.

Calcutta rejected the recommendation on financial grounds. Bombay and Madras rejected it after considering it through academic bodies and special committees appointed to examine the recommendation from 1921 to 1925.[5]

The five state governments now trying to introduce the 10+2+3 pattern have, therefore, a questionable authority of the Sadler Commission and CABE.[6]

A limitation of the Maharashtra Committee's report (Shaikh Committee) on a uniform pattern of higher secondary, vocational and collegiate education, apart from the wrong assumption that 11th and 12th classes belong to the school system is that while it is a coordinated report of 6 sub-committees, viz., (1) Agriculture and Animal Husbandry, Fishery, Dairy, Cooperation, etc., (2) Industrial, Vocational, Technical Education, (3) Commercial Courses, (4) Services—Para-medical Services, Home Science, Training of Teachers and such other Allied Courses, (5) Career Guidance and (6) Vice-Chancellor's Implementing Committee, the general committee has made no attempt to examine the existing facilities for vocational and technical education which need to be integrated with the totality of education. The Maharashtra Report is no doubt an attempt to bring together vocational, technical, industrial and commercial education for discussion in a coordinated form; but the objective was to put the unconnected certificate and diploma courses, which are terminal, in classes

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[5] See Centenary volumes of the three universities. See also Dongerkery, S. R., *History of the University of Bombay*, 1857-1957, Bombay, 1957, pp. 75-77.

[6] See *Report of the Committee on Uniform Pattern of Higher Secondary, Vocational & Collegiate Education in Maharashtra State*, Government of Maharashtra, 1974, p. 1.

11th and 12th and some of them are being put also in the 8th, 9th and 10th classes as junior industrial trade courses and those of the same level in agricultural, commercial and other vocations, without reference to what is being done in the polytechnics and the ITI's. Another limitation of the Report is that the state level committee had not been ready to deal with the doubts raised by the Vice-Chancellors' Committee, academic, financial and administrative. These appear in appendix 'U' of the report. It would have been much better for the group members of the six universities to thrash out the several points in a conference or seminar.

On financial grounds and also on the ground of securing trained teachers such a scheme would appear to be not very practical. This lack of coordination blurs somewhat the merit of an excellent attempt at analysing factual data. The Vice-Chancellors' Committee have expressed genuine doubts about the success of the scheme and the Vice-Chancellor of Poona University, Dr. G. S. Mahajani, raised a warning saying,[7] "If the schools are invited to open these two classes (11th and 12th), there will be a flood of applications from schools and it will be difficult to limit the number." He also suggested that the two years after matric (10th class) be managed (a) by the present colleges and (b) by a limited number of "junior/community/intermediate colleges" authorised to run vocational as well as transfer courses", and that there should be no board for the examinations of the 11th and 12th classes as it should be the duty of the universities to conduct the examinations and prescribe the syllabus of studies in consultation with the various existing bodies and the government.

The attempt[8] of Maharashtra Government to reorganise school and college education on the pattern of 10+2+3 has met with enormous executive difficulties. On 24-6-1975, therefore, they sent round to all authorities in the state a government resolution[9] mentioning the strength of higher secondary schools reducing it from 60 to 50 or 40 with a minimum average attendance of 30. They also recommended meagre grants of Rs. 8,500/- to schools for science courses which would be supplemented by management to the extent of Rs. 2,830/- on the basis of a 75 per cent to 25 per cent ratio.

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[7] *Report of the Committee on Uniform Pattern of Higher Secondary, Vocational and Collegiate Education in Maharashtra State*, Bombay, 1974, pp. 164-65.

[8] As pointed out earlier the position has changed since Jan. 1976 when Jr. Colleges are proposed to be established by Maharashtra Government.

However, all such later resolutions have not dispelled the fears of parents, students and management regarding the programme. The "reality" of the situation is brought out in the difficulties of school managements in rural areas which have received publicity in local language papers as well as in some of the all-India dailies.

One illustration is enough to indicate the fears of the public expressed in the news service item of "The Times of India" dated 13-9-1975 entitled "Higher Secondary Courses Bring Problems in Maharashtra". It raises the question, "Will the two-year higher secondary courses, introduced from the current academic session under the new pattern of education, mean a setback for higher education especially in the rural areas of Maharashtra?" The main difficulty is that the student who earlier would have joined a college after the secondary school certificate examination could not do so now because he was to do his 11th class in a higher secondary school. But there were few schools recognised in rural areas for the purpose and a large number of schools in rural areas would not be able to offer these classes because they would find it difficult to enrol 50 students in a class. Thus as most parents would not be able to afford to send their children elsewhere, higher education available to the rural population, as per objective of Maharashtra State Government, will be denied to them.

Another difficulty was that some higher secondary schools which opened these classes in arts, science and commerce had to close them because they could not get the minimum number of students. The situation has been illustrated by the position in Aurangabad, Kolhapur and Sangli districts. In Aurangabad district, 49 secondary schools and colleges were permitted to start the 11th class but 14 could not do so and the remaining 35 would like to discontinue the classes because of financial and other difficulties. In Kolhapur the situation is worse. 69 out of the 235 schools were permitted to start the 11th class in arts, science and commerce. 36 classes have already been closed down and the remaining may also discontinue for shortage of numbers and financial difficulties.

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[9] Education Department Resolution No. HSC-1075/R-I-II dated 24-6-1975.

It is reported that in Sangli district more than 1200 students will either have to go elsewhere for higher secondary education or give up further studies for similar reasons. The news report further says, "One disturbing development is that while the largest number of HS classes started with government approval is in arts, the largest number of classes closing down is in the same faculty. Everywhere there is a great rush for admission to science and commerce courses." However, provision for science and commerce courses has not been made by the government and vocational courses could not be started in any of the schools for want of laboratories, equipment and teachers. They never thought of integrating such courses with polytechnics and ITI's and bringing such an organization under the university system rather than a bureaucratic organization of the government.

Support for Junior College Idea

As a result of a conference on Junior Colleges in Bombay in August 1975, two articles by V. V. John appeared in "The Times of India" dated 11th and 12th August 1975, on *Opening Junior Colleges*, the first dealing with "Tinkering or Transformation?" and the second with "An idea whose time has come". He pointed out that whatever is now being done in 11 years of higher secondary schools can be done in 10 years and also "what is being done in 3 years of the degree course in college could be done in 2 years". He says, "it would call for a review of prevailing curricula and the chopping of what is peripheral and largely wasteful of the learners' time". He suggests that in 10 years of school the pupil will have acquired prescribed minimum proficiencies in languages and mathematics and of contemporary issues. He adds: "There is some bewilderment as to the content and objectives of the two-year course following 10 years of high school. The confusion has been aggravated by the decision to treat it as part of secondary education and attaching it to the schools and by the widely expressed expectation that these two years will 'siphon' a large percentage of young people into middle-level employment instead of their crowding into the colleges."

V. V. John further points out that it appears that the only reason for abandoning the flexible approach of the Radhakrishnan Commission (he could have added the Sampurnananda Committee Report) is the unwillingness of authority to pay college salaries to teachers teaching courses of studies of the 11th and 12th classes. This point has also been discussed clearly by the Maharashtra Vice-Chancellors' Committee mentioned earlier and most of the universities have expressed similar views that the salary scales of the teachers of the 11th and 12th classes should be comparable with those obtaining in the existing colleges as per UGC scales of pay.

V. V. John points out in his effective style, "if the teachers are to teach college level courses on school salaries, the consequent discontent among teachers will itself ensure the failure of the experiment. . . . For, the two-year course will predictably hold the key to the educational transformation we are looking for."

In his second article, John points out that the time has come for opening Junior Colleges. To quote him again: "More important than the duration of the school courses in the U.S. is the fact that the two-year college in the U.S. is a sector carved out of the four-year undergraduate pattern and given new contents and objectives and a distinctive identity, while keeping open the option for students to transfer, after a two-year college to the upper division of the 4-year system."

He further adds: "The flexibility within the system should be such that not all courses are cut to the same length but rather to the needs of the courses themselves. This would mean that some would take longer than others to do the post-high school course, and to some the course could be shorter." Referring to some of the articles of the present writer, he says that policy-makers should pay more attention to the suggestion[10] that "our polytechnics, industrial training institutes and other skill-oriented establishments should be made part of the pattern that we now seek to interpose between high school and the first degree course. The purely technical courses could be given new academic dimensions just as traditional academic courses could be enriched with vocational programmes."

The first number of *Journal of Indian Education* for May 1975 published by NCERT would appear to be propagating the 10+2+3 formula in a manner in which the +2 is transferred to the school system. Some of the articles however have raised doubts and difficulties in implementing such a recommendation, but mostly it is a vindication of this pattern which has difficulties in implementing in Delhi and other states. The Maharashtra Government are experimenting with the idea by temporarily transferring one year of the two intermediate classes to the school system and retaining the second year in the college system. This may appear to be a convenient method for the time being for the colleges because all of them will have again a four-year degree course; but it really means the system of higher secondary schools of 11 years, so much criticised by the Education Commission. Moreover, splitting of the +2 into a year for the school and a year for the college defeats the very purpose of a 2-year integrated course. Besides, there is a possibility that the system may continue for many years if found convenient both by schools and colleges; schools, because they do not have facilities for the 12th class and colleges because it will ensure the numbers they need. The sociological prediction in an article in the journal of NCERT on impact of the 10+2+3 system by Dr. S. P. Ruhela points out some of the difficulties but does not come to grips with them or make any constructive suggestions. Dr. Ruhela states that the Delhi administration has not yet been able to sort out the problems of teachers of middle classes. Will it be possible for them to deal with the problem of providing teachers for the 12th class? The main point of the article is that changes are being effected in haste. The author says: "Mere imagination of teachers cannot resolve the scarcity of funds. It appears to us logical, therefore, to predict that our educational bureaucracy, unprepared as it is, will not be able to contain the tide of discontent and alienation which would spread all over the 500 and odd number of existing secondary schools in Delhi." He adds that the problems will be worse in other states.

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[10] The reference presumably is to author's articles in "The Hindustan Times", New Delhi and letters in "The Times of India", Bombay.

Another article by Dr. J. N. Kaul entitled "The latest legend: 10+2+2 or 3" also warns that miracles cannot be achieved in a short time. and draws our attention to the appalling conditions of our primary and secondary schools. It sounds a note of warning: "The steamroller of the CABE may stifle all initiative and smother the distinctive features of state system."[11]

The articles about work experience and vocationalisation do not take into consideration the existing facilities provided in polytechnics, industrial training institutes, junior training colleges and other facilities provided by state governments at that level. Actually if these institutions are strengthened as Junior Colleges, it would not be necessary at least for some time to have vocational courses introduced separately at that level and the difficulties of financing additional buildings, providing laboratories and equipment, and finding craft teachers in the schools will be avoided.

A reviewer[12] has remarked that the *Journal of Higher Education* of the UGC, Vol. I, No. 1, Monsoon, 1975 has commenced "with a bad start". He mentions that there is a lot of circumlocution and pseudo-intellectual jargon that pervades the articles in the Journal. We do not entirely agree with the reviewer because there are significant problems raised at least in one article entitled 'Fundamental Questions' by Surinder Suri. He points out, "Educational reform in India tends to fall between different stools, which indicates that the role and performance of education in India are not formulated or understood clearly."[13] For example, the suggestion that education should be job-oriented is a concept which has never been debated in serious discussion and he adds "having borrowed and copied the system of education, there is no original educational thinking in India to speak of. Hence discussion takes place in a fog of confusion."[14] Further, "a national system of education does not exist; a national educational policy is therefore not possible. In the absence of adequate information, purposeful discussion is not easy." He uses strong language, e.g., "the talk of job-oriented higher education indicates the intellectual bankruptcy of those who indulge in it. Obviously, the system of higher education is being maintained and expanded by its clerical creatures in position of power. Despite all talk of reform by high-powered committees, no basic reorientation system is possible until its political controls undergo transformation."[15] It is difficult to be cynical like the author in saying that the situation is 'virtually intractable'. But S. Suri is right when he says, "Ideas and proposals should come out of the discussion among a large number of people, not out of the head of an individual or a coterie."[16]

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[11] *Journal of Indian Education*, NCERT, New Delhi, Vol. I, No. 1, May 1975, p. 32.

[12] "The Times of India", Bombay, 12th Oct. 1975.

[13] *Journal of Higher Education*, U.G.C., New Delhi, Monsoon, 1975

We have advocated in this book that not only the system should be reorganised on the lines indicated in the third part of the book, but the academics should be made responsible for thrashing out the problems and arriving at conclusions and the Central Advisory Board of Education and the proposed Ministry of Higher Education should consider the different points of view expressed by scholars and associations of the universities and arrive at a policy of development.

II

Conclusion

Towards Multi-versity Concept

The universities in India have started with the Newman concept of objectives and goals but after independence have arrived at the multi-versity concept of Clark Kerr[17] and we have argued that the biggest democracy of the world has to move towards the multi-versity concept because of the numbers involved and the problems of quality and equality. India has to follow on the one hand schemes that have socialistic goals and on the other deal with the problems arising out of the federation of states with unequal resources when education primarily happens to be a state subject. The states have uneven economic developments and hence educational disparities create difficulties for central co-ordination. The argument in this book is that larger responsibilities have to be placed on the universities in regard to the diploma (or the lower degree of AA) as well as degree and post-graduate education in a three-tier system. The AA degree, two years after the high schools should enable many students not to pursue further education and this along with the open universities would be an answer to the problem of mounting numbers. This would result in the establishment of multi-versities.

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[14] *Ibid.*, pp. 111 and 112.

[15] *Ibid.*, p. 112.

[16] *Ibid.*, p. 119.

[17] See Chapter I—Introduction.

Manpower: Relations of Government and Universities

A major problem is that of creating a balance between supply and demand of manpower on the assumption that the demand will always increase in various sectors of employment as economic planning progresses. But this is a matter of specialised research by universities and not government established costly institutions like the Institute of Applied Manpower of Home Ministry in New Delhi. In certain fields like engineering, medicine, science, agriculture and administration we need trained personnel at a very high level and a large supporting staff at different levels. How many should be trained and how they should be trained should be a matter for the universities on a rational basis. They should certainly cooperate with the government agencies regarding numbers to be trained.

However, Manpower Planning as is being done in India is out of date as indicated by recent studies. The Carnegie Commission Report, *College Graduates and Jobs*, 1973, which deals with the subject of adjustment to a New Labour Market situation says: "We explicitly reject a 'manpower planning' requirement model as the basic general criteria for the development of higher education. Our rejection of such a model is based on three main considerations:

1. We believe that individuals should enjoy maximum freedom in the choice of their career objectives.

2. We have found that students' choices of fields of study are highly sensitive to shifts in the job market and can be relied upon to be a major factor in the process of adjustment to occupational shifts.

3. Adequate long-range manpower forecasting especially when it is concerned with outlook in particular professions is an exceedingly intricate affair, and, in varying degrees, the methods used in many recent projections have been deficient."[18]

Some Action Programmes

The Carnegie Commission through its labour of 6 years (1968-74) under the chairmanship of Clark Kerr brought out more than 80 volumes 21 of which are the special commission reports on topics of urgent interest in higher education and others are commissioned studies. Though addressed to the American system of education they apply to problems in India in many ways. Some important action programmes based on the Carnegie Commission recommendations and their adaptation to Indian conditions are mentioned below:

1. Definition of goals and purposes.
2. Emphasis on the preservation of inherent quality and diversity.
3. Community/junior colleges spread across the nation.
4. Open universities to be established.
5. Associate in arts degrees to be made generally available after the 2 years of post-10-year school education, to be followed by 2 years' or 3 years' degree courses in different faculties—a mix of the U.S.A. and U.S.S.R. systems.
6. Advancement of social justice.
7. Progressive efforts for constructive change.

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[18] *A Digest of the Carnegie Commission on Higher Education*, 1974, pp 163.

8. Assurance of resources and their more effective use.
9. All post-secondary education to be properly coordinated and systematised. It should be the concern of the universities.
10. Where possible, courses should be compressed into a shorter period rather than longer, including degree courses for professional training.
11. Sandwich programmes should be introduced at more institutions more or less on the British pattern.
12. For coordination and maintenance of standards, a Central Ministry of Higher Education (post-10-year school) should be established under Entry 66 of the VII Schedule of the Constitution and work in cooperation with the state governments and other Central Ministries.

The special report of the Carnegie Commission entitled *Less Time More Options*[19] has listed responsibilities of the federal government and the state governments, of employers, of parents, students, and colleges and universities, some of which are relevant to Indian conditions and have been modified as set out below:

I. *The federal (central) government can assist the developments by*
   - (i) Assessing through the Central Ministry of Higher Education the spread of Community/Junior Colleges across all the states.
   - (ii) Encouraging programmes for reducing the length of time in formal higher education through necessary grants.
   - (iii) Creating a youth service programme on a substantial scale.
   - (iv) Providing labour market information to students as they periodically reassess their careers.
   - (v) Encouraging experiments with open universities.
   - (vi) Coordinating information and disseminating through the Central Bureau of Education.
   - (vii) Activating CABE.

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[19] Carnegie Commission Report, *Less Time More Options*, 1971, pp 31-32.

(viii) Establishing a Ministry of Higher Education for coordination and for giving development and block grants to the universities, in which the present UGC should merge or which can be brought about by converting the UGC into a Ministry of Higher Education.

II. *The state governments can assist by*

(i) Developing Community/Junior Colleges.

(ii) Making all post-secondary education a part of a planning process for university education.

(iii) Strengthening of the high schools with better contents of syllabus and with buildings and equipments and developing them on the USSR pattern.

(iv) Making universities responsible for training of teachers at all levels.

(v) Giving colleges and universities extra financial support for older students; special adjustments will often need to be made for them in admissions, in provision of evening courses and in other ways.

(vi) Participation in the coordination programme of the Central Ministry of Higher Education.

III. *Employers and unions can assist by*

(i) Creating short-term apprenticeship programme for students during the drop-out periods.

(ii) Selecting and promoting employees more on the basis of talent and less on prior certification.

(iii) Establishing in-service and out-of-service training programmes in cooperation with universities.

(iv) Giving educational leave.

(v) Encouraging and assisting sandwich programmes.

IV. *Parents can assist by*

(i) Encouraging their children to use the final year of high school to obtain advance standing in college.

(ii) Watching the interests of students and occupational objectives with a view to encouraging them to undertake higher education only according to their interest and capacity.

V. *Students can assist by*

  (i) Making best use of the final year in high school.
  (ii) Exploring employment and service opportunities before entering college and at stop-out points at college.
  (iii) Determining academic and occupational interests before proceeding from the lower division work.
  (iv) Welcoming talented students into the youth culture of college.

VI. *Colleges and universities can assist by*

  (i) Encouraging students to have work or service experience before entering college, to stop-out while in college to obtain it, or both.
  (ii) Recognizing more fully and extending the use of the A.A. degree[20] after two years of Community/Junior College (intermediate course).
  (iii) Providing opportunities for and accepting students of all ages.
  (iv) Introducing sandwich courses for students with regular employment.
  (v) Providing guidance and advice to students and periodically assessing their careers.
  (vi) Shortening time on the way to degrees.[21]

Need for Academic Criticism

Problems of higher education primarily relate to lack of system. We have suggested that solutions to minor (micro-problems) without relating them to these fundamental issues (macro-problems) would only create more problems. For example, when universities do not have financial autonomy, resulting in constant dependence on the state even at the cost of their intrinsic academic freedom and honesty, autonomy of the colleges would appear to be an anachronism.

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[20] Associate of Arts or Associate of Applied Sciences.

[21] See also Carnegie Commission Report, *op. cit.*, *Less Time More Options*, pp. 25-29.

Thus, while there is no single remedy to our chronic ailments, except strong determination to survive, we have to go through a process of inward search for a systematized organization and rational structure for higher education in India. The intellectual forces have to be used in books, journals, conferences and seminars, in analysis of policies in respect of higher education with unblinking critical detachment. Clark Kerr pointed out recently in discussion with J. A. Perkins (June 1974 ICED Newsletter)[22] that higher education has become a field of scholarship today. "There are something like 800 books a year being published on some one or another aspect of higher education which is more than anybody can possibly read; 20 years ago the number was four." We have to take similar critical interest and help the government by criticising wrong policies and making constructive suggestions. Our books published on higher education are hardly two in a year.

Disparities

Recently at the CABE meeting on 4th and 5th November 1974 the Tamil Nadu Government had raised the point of disparity in the grants of the UGC. They said: "The interstate disparity in the devolution of the UGC assistance is also glaring. Adopting the figures given in an article by Chanchal Sarkar in "The Indian Express" dated 5-12-1973 roughly 50 per cent of the UGC's money went to five central universities in 1972-73. The actual disbursements were: Delhi University (Rs. 3 crores), Delhi's affiliated colleges (Rs. 5 crores), Aligarh (Rs. 4 crores), Varanasi (Rs. 5.25 crores), Vishva-Bharati (Rs. 1.1 crores) and Jawaharlal Nehru University (Rs. 1.7 crores)." It has been further pointed out, "things are more stark when put another way. All the other colleges in India together got from the UGC a total of Rs. 48 crores in the second, third and fourth plans, while the 50 colleges affiliated to Delhi University got Rs. 31 crores in the Fourth Plan alone. In fact each Delhi college gets Rs. 12 lakhs every year while the other colleges in India got an average of

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[22] ICED—International Council for Educational Development New York, Newsletter, June 1974.

Rs. 1.3 lakhs from the UGC."

These disparities can only be removed by a Central Ministry of Higher Education responsible for maintaining standards in all the universities. They will be responsible to Parliament directly. Standards cannot be maintained unless adequate maintenance grants are given to all universities.

It is rather unusual for the Ministry of Education to show an inflexible and misguiding attitude regarding the problem of structure, i.e., the pattern 10+2+3. But in a paper by the Ministry for the CABE Standing Committee meeting of the 4th and 5th November 1974, they expressed their views in unjustifiably strong language. They said: "One point can and should also be insisted upon: these classes (11 and 12) are a part of the school stage and will have to be treated as such. It would be an antithesis of the entire pattern and disastrous to yield to any pressure to maintain these two years as part of the university system and to make all conditions at this stage including modifications of teachers, their remuneration, etc., comparable to those obtaining in the universities or degree colleges; the cost of the programme must then increase tremendously without any commensurate benefit. Such a change, in fact, would be counterproductive and self-defeating."

Such unconvincing arguments, which have already been answered by V. V. John, misrepresent facts historically and are against the actual position in a state like Kerala.

Work and Education

There was an Anglo-American conference at Ditchley Park, England, from September 6 to 9, 1973, on 'the British and American problems of higher education' in which a significant point made was to dissolve "the walls between the worlds of education and work". We have pointed out in the chapter on systems analysis that "work is education" and it is more important that many adults and even younger persons get work and then education rather than education preparatory to work. For India's economic conditions it is necessary to have this to-and-fro movement between work as a priority and training and education for future progress and satisfaction of individual ambitions and expectations that could be obtained 'any time'.

Future Goals

The two slogans of the Carnegie Commission *Less Time More Options* (1971) and a *Chance to Learn—an action agenda for equal opportunity in higher education* and two of Ashby, *More is not worse but different* and *Any person, Any study—an essay* on higher education in the U.S.,[23] should be our guiding principles. Perhaps these could be the articles of faith for educational goals of the future.

Emphasis on Organization, Coordination and System

The academics have to reach some consensus about why they are teaching. Why should the public pay an army of teachers for educating young people resulting only in unemployment? But our analysis indicates that these are narrow views. Once a system is a well-coordinated organization, it finds its own answers and its own solutions. More education cannot be worse—it has to be diversified. The future of higher education in India is bright to the extent attempts are made towards coordination and the academics are encouraged to take the responsibilities of Higher Education introducing a variety of programmes for training and education for the youth and adults and for those in service. Government should nurse and serve universities as important national institutions with a policy of equality of treatment to all. Higher Education is an opportunity for everyone. The problems of coordination and management have therefore arisen which we should attempt to solve, with structural reorganization, new techniques and new thinking available.[24]

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[23] A Carnegie Commission Study—*Any Person, Any Study* by Eric Ashby.

[24] Perkins, J. A. (Ed.), *Higher Education: From Autonomy to Systems*, International Council for Educational Development, New York, 1972, pp. 3-12 and 279-286.

APPENDIX I

List of Universities in India

I—Universities established by State and Central Laws
II—Universities 'deemed' under Section (3) of the UGC Act
III—Institutes of national importance (Constitutional Provision)

(Source: Information supplied by UGC in May 1975)

(I)

S. No. (1)	Year of Establishment (2)	University (3)
1	1857	Calcutta University
2		Bombay University
3		Madras University
4	1887	Allahabad University
5	1916	Banaras Hindu University (Varanasi)
6		Mysore University
7	1917	Patna University
8	1918	Osmania University (Hyderabad)
9	1921	Aligarh Muslim University
10		Lucknow University
11	1922	Delhi University
12	1923	Nagpur University
13	1926	Andhra University (Waltair)
14	1927	Agra University
15	1929	Annamalai University (Annamalainagar)
16	1937	Kerala University (Trivandrum)
17	1943	Utkal University (Bhubaneswar)
18	1946	Saugar University
19	1947	Rajasthan University (Jaipur)
20		Panjab University (Chandigarh)
21	1948	Gauhati University
22		Kashmir University
23	1949	Roorkee University
24		Poona University
25		M. S. University of Baroda
26		Karnatak University (Dharwar)
27	1950	Gujarat University (Ahmedabad)

(1)	(2)	(3)
28	1951	S.N.D.T. Women's University (Bombay)
29		Visva-Bharati (Santiniketan)
30	1952	Bihar University (Muzaffarpur)
31	1954	Sri Venkateswara University (Tirupathi)
32	1955	Sardar Patel University (Vallabh Vidyanagar)
33		Jadavpur University (Calcutta)
34	1956	Kurukshetra University (Kurukshetra)
35		Indira Kala Sangit Vishwavidyalaya (Khairagarh)
36	1957	Vikram University (Ujjain)
37		Gorakhpur University
38		Jabalpur University
39	1958	Varanaseya Sanskrit Vishwavidyalaya (Varanasi)
40		Marathwada University (Aurangabad)
41	1960	G. B. Pant University of Agriculture & Technology (Nainital)
42		Burdwan University
43		Kalyani University
44		Bhagalpur University
45		Ranchi University
46	1961	K. S. Darbhanga Sanskrit Vishwavidyalaya
47	1962	Punjab Agricultural University (Ludhiana)
48		Panjabi University (Patiala)
49		Orissa University of Agriculture and Technology (Bhubaneswar)
50		North Bengal University (Siliguri)
51		Rabindra Bharati (Calcutta)
52		Magadh University (Gaya)
53		Jodhpur University
54		Udaipur University
55		Shivaji University (Kolhapur)
56	1964	Indore University
57		Jiwaji University (Gwalior)
58		Ravi Shankar University (Raipur)
59		University of Agricultural Sciences (Bangalore)
60	1964	Andhra Pradesh Agricultural University (Hyderabad)
61		Bangalore University
62		Jawaharlal Nehru Krishi Vishwavidyalaya

(1)	(2)	(3)
		(Jabalpur)
63	1965	Dibrugarh University
64		Kanpur University
65		Meerut University
66		Madurai University
67		Saurashtra University (Rajkot)
68		South Gujarat University (Surat)
69	1967	Berhampur University
70		Sambalpur University
71	1968	Gujarat Ayurveda University (Jamnagar)
72		Jawaharlal Nehru University (New Delhi)
73		Mahatma Phule Krishi Vidyapeeth (Rahuri, Ahmednagar)
74		Calicut University
75		A. P. Singh University (Rewa)
76		Assam Agricultural University (Jorhat)
77	1969	Guru Nanak University (Amritsar)
78		Jammu University (Jammu)
79		Panjabrao Krishi Vidyapith (Akola)
80	1970	Haryana Agricultural University (Hissar)
81		Himachal Pradesh University (Simla)
82		Bhopal University
83		Rajendra Agricultural University (Dholi, Muzaffarpur)
84	1971	Tamil Nadu Agricultural University (Coimbatore)
85		Cochin University
86	1972	Kerala Agricultural University (Trichur)
87		Gujarat Agricultural University (Ahmedabad)
88		Konkan Krishi Vidyapeeth (Dapoli)
89		Marathwada Krishi Vidyapith (Parbhani)
90		Mithila University (Darbhanga)
91		Jawaharlal Nehru Technological University (Hyderabad)
92	1973	North Eastern Hill University (Shillong)
93		Kumaon University (Nainital)
94		Garhwal University (Srinagar-Garhwal)
95	1974	Kashi Vidyapith (Varanasi)
96		Bidhan Chandra Krishi Vishvavidyala (Kalyani)
97		University of Hyderabad
98	1975	Rohilkhand University (Bareilly)

(II)

S. No. (1)	Year of Establishment (2)	University (3)
1	1958	Indian Institute of Science (Bangalore)
2		Indian Agricultural Research Institute (New Delhi)
3	1962	Gurukul Kangri Vishwavidyalaya (Hardwar)
4		Jamia Millia Islamia (New Delhi)
5	1963	Gujarat Vidyapith (Ahmedabad)
6	1964	Tata Institute of Social Sciences (Bombay)
7		Birla Institute of Technology and Science (Pilani)
8	1967	Indian School of Mines (Dhanbad)
9	1973	Central Institute of English and Foreign Languages (Hyderabad)

(III)

S. No. (1)	Name of Institution (2)	Year of Establishment (3)	Year in which declared as an institution of national importance (4)
1	Hindi Sahitya Sammelan, Prayag, Allahabad, (Uttar Pradesh)	1910	1962
2	Dakshina Bharat Hindi Prachar Sabha, Madras, (Tamil Nadu)	1918	1964
3	Indian Statistical Institute, Calcutta, (West Bengal)	1932	1959
4	Indian Institute of Technology, Kharagpur, (West Bengal)	1950	1956
5	All India Institute of Medical Sciences, New Delhi	1956	1956
6	Indian Institute of Technology, Bombay, (Maharashtra)	1958	1962

(1)	(2)	(3)	(4)
7	Indian Institute of Technology, Madras, (Tamil Nadu)	1959	1962
8	Indian Institute of Technology, Kanpur, (Uttar Pradesh)	1959	1962
9	Indian Institute of Technology, Delhi	1961	1963
10	Postgraduate Institute of Medical Education and Research, Chandigarh	1962	1967

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